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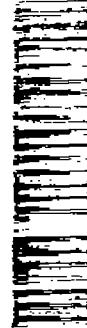
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RESEARCH MEMORANDUM

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL
LOADING OVER TRIANGULAR WINGS IN SIDESLIP
AT SUPERSONIC SPEEDS

By John W. Boyd

Ames Aeronautical Laboratory
Moffett Field, Calif.

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RESEARCH MEMORANDUM

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL
LOADING OVER TRIANGULAR WINGS IN SIDESLIP
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SUMMARY

The results of an experimental investigation of the pressure distribution over two triangular wings in sideslip at supersonic speeds are presented. The two wings had identical plan forms, 45° sweepback of the leading edge, and an aspect ratio of 4.0. One model was composed of round leading-edge sections (NACA 0006-63) and the other of sharp-nose, symmetrical, circular-arc sections. For both wings the maximum thickness of streamwise sections was 6 percent and was located at the 30-percent chord. The experimental data were obtained through a sideslip range from 0° to 9°, for angles of attack from 0° to 10°, at Mach numbers from 1.20 to 1.70 and at a constant Reynolds number of 1.8 million.

At the high angles of attack, the results showed a significant departure of the variation in the experimental loading with sideslip from that predicted by the linearized theory. In the lower speed range (Mach lines swept ahead of the leading edge) the positive dihedral effect predicted by theoretical calculations was in evidence at the low angles of attack but was not realized at the high angles of attack. The airfoils exhibited a variation of dihedral effect with lift coefficient similar to the variation with Mach number predicted by theory, in this case a loss of positive dihedral effect.

In the higher speed range (Mach line swept behind the leading wing), because of a detached bow wave ahead of the leading edge and resulting subsonic velocities at the leading edge, the load distribution revealed characteristics similar to those experienced in the lower speed range wherein the Mach lines were swept ahead of the leading edge.

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INTRODUCTION

Reference 1 has shown that transonic flow effects have a significant influence on the experimental load distribution over triangular wings at high lift coefficients at supersonic speeds. These transonic effects have been shown to be primarily a function of the Mach number component perpendicular to the swept leading edge (reference 1). It is expected, therefore, that these effects may significantly influence the load distribution over triangular wings in sideslip. The present investigation was undertaken to determine whether or not these expectations would be realized and to provide data for a comparison of the theoretical and experimental load distributions. It is suggested that the reader refer to reference 1 for a more detailed explanation of transonic effects since, in the interest of brevity, some of the explanations concerning transonic flow characteristics are omitted in the present report.

SYMBOLS

$\frac{b}{2}$ semispan, feet

c local wing chord, feet

c_r root chord, feet

\bar{c} mean aerodynamic chord measured parallel to the plane of symmetry
$$\left(\frac{\int_0^{b/2} c^2 dy}{\int_0^{b/2} c dy} \right), \text{ feet}$$

M free-stream Mach number

P pressure coefficient $\left(\frac{p-p_0}{q_0} \right)$

$\frac{\Delta p}{q_0 \alpha}$ loading coefficient per unit angle of attack $\left(\frac{p_l - p_u}{q_0 \alpha} \right)$, per degree

p local pressure on airfoil, pounds per square foot

p_0 free-stream static pressure, pounds per square foot

q_0 free-stream dynamic pressure $\left(\frac{1}{2} \rho V^2\right)$, pounds per square foot

R Reynolds number based on mean aerodynamic chord

V velocity of free stream, feet per second

$\frac{w}{2}$ half-width of plan form at any root-chord position, feet

x,y rectangular coordinates in the plane of the wing with the origin at the apex of the wing and x measured parallel to plane of symmetry of the wing

α angle of attack of wing at plane of symmetry, degrees

β sideslip angle (positive when sideslipping to right), degrees

ϵ vertex half-angle of wing plan form, degrees

μ Mach angle ($\sin^{-1} \frac{1}{M}$), degrees

ρ mass density of free stream, slugs per cubic foot

Subscripts

l conditions on lower surface of airfoil

u conditions on upper surface of airfoil

APPARATUS AND MODELS

The experimental investigation was conducted in the Ames 6- by 6-foot supersonic wind tunnel which is of the closed-return variable-pressure type with a Mach number range from 1.15 to 2.0. This wind tunnel is described fully in reference 2.

A sketch of the 45° swept-back triangular wing models which gives all plan-form dimensions is shown in figure 1. In order to obtain as high a test Reynolds number as possible, the maximum size model which was free from wind-tunnel-wall interference at the lowest test Mach number was used.

Since in reference 3 there was shown a pronounced effect of chord-wise-airfoil-thickness distribution on the flow characteristics of airfoil sections at transonic speeds and, since in the present experiment it was expected that similar transonic effects would be manifest, two different airfoil sections were selected for the wings. One wing was composed of round-nose airfoil sections 6 percent thick in streamwise planes. The section used for this wing was the NACA 0006-63 profile. The other wing was composed of sharp-nose, symmetrical, circular-arc sections. For both wings the maximum thickness of streamwise sections was 6 percent and was located at the 30-percent chord. See table I for airfoil ordinates.

The models were cast of bismuth-tin alloy and coated with zinc chromate to give a smooth surface. The cone which joined the wing to the support sting (fig. 2) was designed to minimize the pressure disturbance and at the same time fulfill the strength requirements. The support sting itself served as a conduit for the pressure tubes.

The right wing panel was fitted with 86 pressure orifices, each 0.013 inch in diameter, arranged to measure the local pressures on the surface in such a manner as to permit the calculation of the pressure difference between the upper and lower surfaces. These orifices were located in planes perpendicular to the plane of symmetry at three chordwise stations (fig. 1). These stations hereafter designated as stations 1, 2, and 3 were located at 25, 50, and 75 percent of the root chord, respectively.

The models were mounted with the plane of the wing in the vertical plane in the test section. A cantilever sting support was used as shown in figure 2. The sting angle of attack could be adjusted to any angle between $\pm 5^{\circ}$ while the tunnel was operating. Through the use of bent stings, various angles of attack and angles of sideslip could be obtained. For the present test both a 5° and a 10° bent sting were employed to give an angle-of-attack range of approximately 0° to 10° and angles of sideslip from -9° to $+9^{\circ}$. Since the model angle of attack during the test was influenced by the deflection of the model support under load, an arrangement of mirrors and lenses was used to determine optically the true angle of attack. The angle of sideslip was determined by means of a cathetometer.

METHODS

Theoretical

The theoretical loading per unit angle of attack was calculated using the formulas of reference 4 as derived from the linearized theory. The flow field of a flat lifting triangular wing in sideslip is of conical form; that is, quantities such as pressure and velocity are constant along rays emanating from the apex of the wing. The flow, therefore, when shown in transverse planes (planes normal to the axis of symmetry) has a characteristic of two-dimensional flow in that the pressure plots at all fore and aft locations will be similar.

Since the theory is based on linear differential equations, the principle of superposition applies so that the pressure distribution due to airfoil thickness has no influence on the pressure distribution due to angle of attack or vice versa.

Experimental

Tests.— In the present investigation, data were obtained over a Mach number range from 1.20 to 1.70 at a constant Reynolds number of 1.8 million. Measurements were made through a sideslip range from 0° to 9° and at angles of attack from 0° to 10°. It should be noted here that the load distributions presented in figures 3 through 8 over the trailing wing panel were actually measured over the leading wing panel at equal negative sideslip angles.

Recording and reduction of data.— The pressures were indicated on multiple-tube manometers which were photographed to record the pressures. The data were reduced directly to spanwise plots of the pressure coefficient through use of a plotting machine.

Precision.— Surveys of the tunnel air stream (reference 2) have shown that at Mach numbers other than 1.40 there exist pressure and stream angle disturbances in the air stream. These surveys indicate, however, that the flow in the air stream is two-dimensional; that is, there are no appreciable transverse pressure gradients in horizontal planes. In the present test, therefore, since there is no cross flow in horizontal planes in the test section, the model was mounted with the wing in the vertical plane to minimize the effects of stream irregularities on the load distribution. Hence, since the flow was similar in all vertical planes, the static-pressure corrections applied were those measured in the vertical plane at the center line of the tunnel.

In applying these corrections it was assumed that the static pressures on the upper and lower surfaces were equally affected by the stream static-pressure variation and that the lifting pressures were not affected. These assumptions have been shown to be valid by the results of the investigation of reference 2.

The major items which may cause inaccuracies in the experimental pressure distributions have been noted in reference 5. Since the techniques employed in this investigation parallel those used in reference 5, the over-all precision should be approximately of the same magnitude; that is, the wing static pressures should be accurate to within ± 1 percent of the dynamic pressure.

As noted previously, the size of the wing was chosen so that at the lowest Mach number there was no interference between the wing and the compression or expansion waves originating on the model and reflecting from the tunnel walls.

Errors made in measuring the angle of attack were confined to purely mechanical inaccuracies since the variation of the stream angle in transverse planes was negligible. A possible error of $\pm 0.05^\circ$ in the angle of attack was incurred in the initial referencing of the model with respect to the stream direction. The angle of attack under load, determined by means of the optical measuring system, could be read to within $\pm 0.03^\circ$, resulting in a total possible error of $\pm 0.08^\circ$ in the angle-of-attack reading.

Errors made in measuring the angle of sideslip were a combination of stream-angle variation and mechanical inaccuracies. Because of the axial variations in the stream angle at Mach numbers other than 1.40 it was difficult to determine the effective model angle of sideslip. At a Mach number of 1.20 the angle of sideslip may be in error as much as 1.1° due to stream inclination, whereas at a Mach number of 1.70 the stream angle may be as great as 1.1° in the opposite direction. All of the data presented herein are for angles of sideslip which have not been corrected for stream inclination. Mechanically the inaccuracy of the sideslip angle was limited to the accuracy of the cathetometer which could be read to within $\pm 0.05^\circ$.

The absolute humidity of the air in the wind tunnel was kept below 0.0003 pound of water per pound of air at all times so that it had negligible effect on the experimental results.

RESULTS AND DISCUSSION

The experimental results in the form of pressure coefficients on the upper and lower surfaces for the complete range of test variables

are presented in tabular form for any analysis which the reader may wish to make (tables II-VII). A portion of the data of station 3 was omitted because of noticeable interference effects from the support cone. For the purpose of discussion in this report, figures showing the experimental load distributions are presented for Mach numbers of 1.20 and 1.70 and compared with the theoretical results. These data are considered representative of the results obtained throughout the test range.

Experimental Load Distributions

In the analysis of the experimental lifting pressures the data show, as in reference 1, that, while theory and experiment did not always agree on the magnitude of the pressures on the wing, the experimental lifting pressures were essentially constant along rays from the apex of the wing so that conical flow fields existed for both theory and experiment. It is possible, therefore, and convenient in considering the loading over triangular wings to resort to transverse pressure plots since they are essentially similar at all fore-and-aft locations. Components of the velocity perpendicular to rays are considered in analyzing these transverse pressure plots. It may be seen that on the surface of wings moving at supersonic speeds the components may be either subsonic or supersonic, depending on the stream Mach number and the sweep of the ray considered, so that no inconsistency exists in referring to subsonic velocity components on the surface of an airfoil moving at supersonic speeds.

The variable $\tan \epsilon / \tan \mu$, where ϵ is the semivertex angle of the wing and μ is the Mach angle, is sometimes used to indicate the relative position of the Mach line from the apex with respect to the wing leading edges. Values of $\tan \epsilon / \tan \mu$ greater than one correspond to the condition wherein the Mach line is swept behind the leading edge and values less than one correspond to the condition wherein the Mach line is swept ahead of the leading edge.

Mach lines swept ahead of the leading edge.—The variation of the experimental load distribution with angle of sideslip for both the round-nose and the sharp-nose airfoil is presented in figure 3 for low angles of attack (approximately 2.5°) and for a Mach number of 1.20. The data presented here are typical of the results obtained at low angles of attack in this speed range (Mach lines swept ahead of the leading edge). Examination of the data revealed that, as the angle of sideslip was increased from 0° to 9° , the experimental data showed the increase in loading over the leading wing panel and decrease in loading over the trailing wing panel expected from theoretical considerations, that is, a positive dihedral effect. Positive dihedral effect is

considered to exist when the loading is such as to cause the leading wing panel to rise and the trailing wing panel to lower.

For higher angles of attack (approx. 8.6°), very little variation in the loading with angle of sideslip was noted. As shown in figure 4, the data obtained for both the round-nose airfoil and the sharp-nose airfoil indicated little change in the magnitude or the distribution of the experimental loading coefficients as the angle of sideslip was increased from 0° to 9° , very little dihedral effect being present in this case. Theoretical studies, while strictly applicable to only small angles of attack, lead one to expect that positive dihedral effect also would be present here. The reasons for the departure of the variation in experimental loadings with sideslip at high lift coefficients from the theoretically predicted trends are not known. However, at high angles of attack such as those under consideration, because of the transonic character of the flow (see reference 1), the Mach number of the flow over the upper surface of the airfoil is much higher than that of the free stream. It is possible, therefore, that the airfoil exhibits characteristics which the theory predicts for higher Mach numbers (bow wave attached), in this case a loss of positive dihedral effect.¹ (See reference 6.)

Mach lines swept behind the leading wing.—The variation of the experimental loading with angle of sideslip for both wings is presented in figure 5 for a Mach number of 1.70 and an angle of attack of 2.5° . It is evident from a study of these data and similar data at 8.6° angle of attack (see fig. 6) that, even though the theoretical flow velocity component perpendicular to the edge of the leading wing was supersonic, the resulting load distributions differed little from those in the lower speed range where the flow component perpendicular to the leading wing was subsonic. At these higher supersonic speeds ($M = 1.70$) the value of $\tan \epsilon / \tan \mu$ for the leading wing panel was greater than 1.0 but less than the value for which the shock wave became attached to the sharp leading edge. Therefore, for both airfoils, transonic flow characteristics were evident in the form of a detached bow wave ahead of the swept leading edge. Since in the region between the detached bow wave and the leading edge the flow components perpendicular to the leading wing were subsonic, the flow around the leading edge of the airfoil was similar to the flow experienced when the Mach lines were swept ahead of the leading edge. It is not surprising, therefore, that the airfoils did not exhibit characteristics with regard to dihedral effect which are in agreement with the theory which assumes the bow wave to be

¹Verification of this hypothesis can be obtained by a separate examination of the pressure data on the upper and lower surfaces of the airfoil (tables II-VII). These data show that the distribution of loading on the upper surface of the wing is such as to result in the loss in positive dihedral effect.

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attached, but rather, because of these transonic effects, showed characteristics similar to those noted in the lower speed range (Mach lines swept ahead of the leading edge), that is, a positive dihedral effect at 2.5° angle of attack which was reduced to almost zero dihedral effect at 8.6° angle of attack.

Comparison of Experimental and Theoretical Loading

A comparison of the theoretical load distribution with the experimental values at 9° of sideslip is presented in figure 7 for both the round-nose and the sharp-nose airfoil at a Mach number of 1.20. At the low angles of attack the data for the sharp-nose airfoil are in somewhat better agreement with the theory than the data for the round-nose airfoil. For the high angles of attack, the experimental loading for both airfoils revealed certain pressure discontinuities over the airfoil surface (as indicated on the trailing panel at about 70-percent semispan and on the leading panel at about 60-percent semispan), resulting in a reduction in the loading, which were quite similar to those noted in the data for triangular wings at zero sideslip (reference 1). The discontinuities over the triangular wing at zero sideslip have been shown to be associated with certain transonic effects (formation of shock waves) similar to those experienced over two-dimensional airfoils at transonic speeds (reference 3). It was concluded that the pressure discontinuities noted in the data of the present investigation also denoted the existence of shock waves on the airfoil surface and that the shock patterns in transverse planes resemble closely the patterns existing on triangular wings at zero sideslip (reference 1).

The theoretical and experimental load distributions at 9° of sideslip are compared for both airfoils in figure 8 for a Mach number of 1.70. Since $\tan \epsilon / \tan \mu$ of the leading wing is greater than unity, it is assumed in the theory that the bow wave is attached to the wing leading edge with the result that the lifting pressures are constant between the Mach line and the leading edge. In the actual case, however, since the bow wave was detached, interaction between the upper and lower surface occurred, resulting in a pressure peak near the leading edge. Over the remaining portion of the span the experimental loading for both airfoils was in fairly good agreement with the theoretical.

CONCLUDING REMARKS

The present investigation of the characteristics of the pressure distribution over two triangular wings in sideslip for a Mach number

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range of 1.20 to 1.70 was made to study the transonic effects on the load distribution over triangular wings in sideslip and to provide data for a comparison of the experimental and theoretical load distributions.

In the lower speed range (Mach lines swept ahead of the leading edge) the results of the investigation indicated at the high angles of attack a significant departure of the variation of the experimental loading with sideslip from that indicated by the linearized theory. The positive dihedral effect expected from theoretical considerations was in evidence at the low angles of attack but was not realized at the high angles of attack. The airfoils exhibited a variation of dihedral effect with lift coefficient similar to the variation with Mach number predicted by theory, that is, a loss of dihedral effect with increasing Mach number.

In the higher speed range where the Mach line was swept behind the edge of the leading wing panel, because of a detached bow wave ahead of the leading edge and resulting subsonic velocities at the leading edge, the load distributions exhibited characteristics similar to those experienced in the lower speed range wherein the Mach lines were swept ahead of the leading edge.

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TABLE I.- AIRFOIL ORDINATES

[Stations and Ordinates Given in Percent of Airfoil Chord]

NACA 0006-63				Sharp-Nose Symmetrical Circular-Arc Profile			
Upper surface		Lower surface		Upper surface		Lower surface	
Station	Ordinate	Station	Ordinate	Station	Ordinate	Station	Ordinate
0	0	0	0	0	0	0	0
1.25	.95	1.25	-.95	5	.92	5	-.92
2.50	1.31	2.50	-.31	10	1.67	10	-.67
5.0	1.78	5.0	-.78	15	2.25	15	-.25
7.5	2.10	7.5	-.10	20	2.67	20	-.67
10	2.34	10	-.34	25	2.92	25	-.92
15	2.67	15	-.67	30	3.00	30	-.00
20	2.87	20	-.87	40	2.94	40	-.94
25	2.97	25	-.97	50	2.75	50	-.75
30	3.00	30	-.00	60	2.45	60	-.45
40	2.90	40	-.90	70	2.02	70	-.02
50	2.65	50	-.65	80	1.47	80	-.47
60	2.28	60	-.28	85	1.15	85	-.15
70	1.83	70	-.83	90	.79	90	-.79
80	1.31	80	-.31	95	.40	95	-.40
90	.72	90	-.72	100	0	100	0
95	.40	95	-.40				
100	(.06)	100	(-.06)				
100	0	100	0				
L.E. radius: 0.40							

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TABLE II.—EXPERIMENTAL PRESSURE COEFFICIENTS
[M = 1.20]

$\theta = 0^\circ$																						
		Round-nose airfoil								Sharp-nose airfoil												
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.8^\circ$		$\alpha=10.1^\circ$		
x/c_x	$y/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	—	0.544	—	—	0.694	—	—	0.717	—	—	0.747	—	—	0.770	—	—	—	—	—	—
	.933	0.099	.255	-0.080	.399	-0.233	.220	-0.454	.692	-0.593	.720	-0.330	0.373	0.184	0.498	-0.221	0.589	-0.665	0.686	-0.382	0.739	
	.867	.032	.085	-1.139	.228	-1.302	.356	-1.511	.512	-1.548	.578	-0.251	.309	.141	.423	-0.006	.507	-1.436	.682	-1.553	.669	
	.800	.027	.059	-1.114	.189	-1.269	.308	-1.461	.499	-1.516	.584	-0.195	.255	.101	.359	-0.111	.443	-1.311	.560	-1.417	.610	
	.733	.029	.043	-1.096	.158	-1.230	.267	-1.433	.412	-1.492	.475	-0.157	.208	.070	.308	-0.026	.391	-1.256	.509	-1.379	.559	
	.667	—	—	.039	—	—	.138	—	—	.236	—	—	.377	—	—	.437	—	.134	.178	.032	.272	—
	.533	.011	.034	-0.079	.121	-1.154	.206	-1.269	.336	-1.309	.395	-0.099	.134	0	.028	-0.117	.294	-1.140	.410	-1.165	.462	
	.400	.012	.023	-0.079	.097	-1.143	.180	-1.235	.302	-1.254	.360	-0.067	.094	.173	.064	-0.151	.360	-1.174	.411	-1.177	.379	
0	.267	.003	.013	-0.067	.088	-1.124	.167	-1.209	.286	-1.230	.341	-0.036	.072	-0.009	.148	-0.064	.219	-1.149	.389	-1.177	.349	
	0	.008	.013	-0.084	.083	-1.115	.150	-1.191	.272	-1.210	.366	-0.036	.054	-0.020	.125	-0.076	.194	-1.148	.300	-1.176	.349	
0.50	1	—	—	.555	—	—	.624	—	—	.634	—	—	.561	—	—	.588	—	—	—	—	—	—
	.967	0	.069	-0.229	.257	-0.395	.404	-0.658	.558	-0.647	.647	-0.167	.263	-0.002	.402	-0.565	.498	-0.760	.604	-0.841	.668	
	.933	-.084	-.026	-1.307	.140	-1.461	.285	-1.559	.443	-1.688	.545	-0.094	.184	.049	.307	-0.359	.397	-1.656	.499	-1.777	.594	
	.900	—	—	.058	—	—	.091	—	—	.227	—	—	.380	—	—	.692	—	.113	—	.232	—	.380
	.867	-.101	-.098	-1.297	.073	-1.453	.199	-1.642	.347	-1.677	.448	-0.025	.066	-0.091	.180	-0.208	.265	-1.593	.402	-1.688	.419	
	.800	-.114	-.076	-1.241	.034	-1.405	.147	-1.597	.286	-1.648	.391	-0.047	.001	.151	.104	-0.254	.189	-1.567	.329	-1.659	.366	
	.733	-.117	-.096	-1.231	.003	-1.362	.112	-1.573	.245	-1.627	.353	-0.091	.053	.183	.044	-0.276	.130	-1.384	.266	-1.575	.366	
	.667	-.118	-.106	-1.227	-.013	-1.320	.090	-1.570	.220	-1.606	.331	-0.111	.093	.198	0	-0.290	.088	-1.366	.225	-1.422	.300	
0.75	.600	—	—	.102	—	—	.018	—	—	.080	—	—	.209	—	—	.387	—	.129	.116	.205	.026	.285
	.533	-.121	-.101	-1.203	-.021	-1.275	.074	-1.343	.193	-1.400	.314	-0.131	.120	-0.207	.032	-0.280	.063	-1.373	.201	-1.413	.312	
	.467	-.114	-.093	-1.192	-.017	-1.254	.073	-1.335	.193	-1.359	.310	-0.123	.106	-0.197	.023	-0.268	.066	-1.362	.199	-1.401	.311	
	.400	-.113	-.087	-1.188	-.015	-1.247	.069	-1.335	.191	-1.356	.309	-0.111	.093	.180	.014	-0.247	.068	-1.341	.199	-1.373	.313	
	.267	-.099	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.133	-.068	-.073	-1.136	-.004	-1.207	.081	-1.261	.236	-1.284	.330	-0.079	.068	-0.137	.005	-0.194	.080	-0.276	.233	-0.298	.384	
	0	—	—	.074	—	—	.005	—	—	.084	—	—	.252	—	—	.339	-0.073	.060	.129	.005	.187	.083
	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
0.75	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.955	-.153	-.094	-1.359	.065	-1.520	.215	-1.717	.438	-1.747	.561	-0.006	.035	-1.325	.172	-1.227	.282	-1.693	.476	-1.840	.385	
	.933	-.172	-.151	-1.379	.030	-1.525	.160	-1.721	.374	-1.745	.512	-0.090	.023	-1.206	.104	-1.215	.209	-1.679	.418	-1.807	.472	
	.912	-.193	-.167	-1.380	-.088	-1.518	.114	-1.708	.341	-1.733	.453	-0.131	.080	-1.242	.043	-1.494	.151	-1.377	—	—	.393	
	.889	-.206	-.184	-1.382	-.048	-1.516	.089	-1.700	.319	-1.746	.390	-0.161	.127	-1.271	.011	-1.476	.105	-1.668	.330	-1.774	.393	
	.867	—	—	.201	—	—	.067	—	—	.301	—	—	.369	—	—	.161	—	.046	—	.076	—	
	.845	-.221	-.202	-1.359	-.070	-1.523	.057	-1.691	.293	-1.720	.357	-0.205	.182	-0.309	.067	-1.379	.064	-1.659	.296	-1.758	.367	
	.800	-.224	-.196	-1.349	-.076	-1.500	.043	-1.679	.283	-1.713	.343	-0.223	.199	-0.380	.076	-1.406	.059	-1.650	.292	-1.722	.351	
0	.756	-.216	-.181	-1.332	-.072	-1.476	.045	-1.677	.287	-1.699	.343	—	—	-1.204	—	-1.079	—	—	—	—	—	
	.711	-.203	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.667	-.189	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.622	-.178	-.148	-1.271	-.057	-1.344	.077	-1.561	.299	-1.649	.343	-1.181	—	-1.272	—	—	—	—	—	—	—	
	.578	-.159	-.137	-1.252	-.039	-1.305	.095	-1.402	.311	-1.531	.353	-1.169	-1.37	-1.254	.046	-1.337	.089	-1.428	.288	-1.456	.334	
	.533	-.149	-.122	-1.242	-.024	-1.302	.113	-1.386	.316	-1.467	.399	-1.154	-1.189	-1.242	.041	-1.308	.147	-1.407	.294	-1.431	.339	
	.446	—	—	.095	—	—	.030	—	—	.209	—	—	.327	—	—	.370	-1.129	.111	-1.218	.024	.284	.187
	0	—	—	.095	—	—	.030	—	—	.209	—	—	.327	—	—	.370	-1.129	.111	-1.218	.024	.284	.187

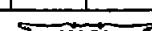


TABLE II.-- CONTINUED

$\beta = 5^\circ$													
Right wing panel													
Station		Bound-nose airfoil				Sharp-nose airfoil							
x/c_x	y/w^2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	---	0.698	---	0.767	---	0.842	---	0.870	---	0.941	---	---
	.933	0.126	.316	-0.042	.463	-0.185	.603	-0.395	.720	-0.458	.825	0.385	0.446
	.867	.039	.118	-0.132	.265	-0.275	.404	-0.467	.546	-0.529	.655	.300	0.375
	.800	.027	.078	-0.126	.216	-0.286	.347	-0.460	.484	-0.544	.588	.231	0.310
	.733	.028	.053	-0.110	.179	-0.256	.301	-0.437	.433	-0.514	.532	.184	0.250
	.667	---	.044	---	.155	---	.267	---	.391	---	.489	.154	0.212
	.533	.003	.039	-0.087	.131	-0.163	.238	-0.322	.344	-0.417	.439	.113	0.157
	.400	-0.009	.035	-0.087	.106	-0.149	.197	-0.248	.302	-0.275	.393	.073	0.108
	.267	-0.006	.016	-0.074	.093	-0.128	.180	-0.216	.284	-0.245	.371	.054	0.078
0	-0.002	.016	-0.066	.088	-0.110	.174	-0.174	.267	-0.213	.354	-0.053	0.082	-0.020
0.50	1	---	.678	---	.761	---	.784	---	.739	---	.784	---	---
	.967	-0.010	.136	-0.161	.385	-0.315	.485	-0.505	.623	-0.702	.736	.228	0.349
	.933	-0.071	.014	-0.267	.185	-0.400	.345	-0.611	.486	-0.702	.624	.139	0.257
	.900	---	-0.024	---	.128	-0.436	.268	---	.417	---	.682	.245	0
	.867	-0.088	-0.029	-0.272	.108	-0.429	.237	-0.601	.378	-0.659	.506	.059	0.118
	.800	-0.114	-0.054	-0.246	.059	-0.418	.177	-0.582	.309	-0.654	.439	.015	0.040
	.733	-0.123	-0.082	-0.240	.021	-0.391	.134	-0.563	.260	-0.644	.392	.080	0.128
	.667	-0.139	-0.099	-0.246	.001	-0.342	.111	-0.529	.229	-0.607	.367	.107	0.176
	.600	---	-0.099	---	.008	-0.311	.100	---	.218	---	.357	.131	0.208
	.533	-0.129	-0.099	-0.219	.014	-0.295	.089	-0.462	.303	-0.565	.339	.140	0.228
	.467	-0.123	-0.093	-0.205	.010	-0.272	.090	-0.330	.199	-0.375	.343	.135	0.209
	.400	-0.122	-0.088	-0.201	.010	-0.260	.089	-0.341	.197	-0.373	.340	.120	0.180
	.267	-0.105	---	-0.177	---	-0.221	---	-0.309	---	-0.387	---	.095	-0.070
	.133	-0.089	.064	-0.158	.008	-0.206	.104	-0.272	.241	-0.287	.359	.079	-0.059
0	---	0.059	---	.012	---	.119	---	.262	---	.378	.070	.053	-0.125
0.75	1	---	---	---	---	---	---	---	---	---	---	0.096	0.105
	.978	---	---	---	---	---	---	---	---	---	---	.490	0.490
	.955	-0.125	-0.030	-0.310	.118	-0.478	.266	-0.697	.474	-0.750	.583	.046	0.124
	.933	-0.154	-0.091	-0.335	.054	-0.476	.182	-0.680	.418	-0.739	.595	-0.048	0.044
	.912	-0.179	-0.120	-0.377	.007	-0.482	.149	-0.675	.363	-0.734	.468	-0.098	0.023
	.889	-0.196	-0.145	-0.368	.023	-0.485	.180	-0.667	.337	-0.787	.439	-0.135	0.075
	.867	---	-0.170	---	-0.047	---	.094	---	.315	---	.416	0.118	-0.011
	.845	-0.222	-0.180	-0.377	-0.057	-0.498	.083	-0.658	.306	-0.722	.403	-0.189	0.289
	.800	-0.234	-0.184	-0.366	-0.066	-0.505	.067	-0.648	.295	-0.716	.390	-0.214	0.308
	.756	-0.234	-0.176	-0.353	-0.063	-0.490	.064	-0.636	.298	-0.708	.388	0	0.191
	.711	-0.222	---	-0.340	---	-0.454	---	-0.617	---	-0.685	---	.223	0.184
	.667	-0.209	---	-0.319	---	-0.433	---	-0.595	---	.668	---	.213	0.167
	.622	-0.196	-0.150	-0.298	-0.056	-0.403	.083	-0.571	.305	-0.663	.383	-0.203	0.292
	.578	-0.179	-0.139	-0.277	-0.037	-0.366	.105	-0.587	.317	-0.645	.391	-0.189	0.143
	.533	-0.169	-0.125	-0.265	-0.018	-0.334	.124	-0.507	.333	-0.628	.404	-0.172	0.263
	.446	---	-0.088	---	.020	---	.156	---	.353	---	.412	-0.140	-0.107



TABLE II.— CONTINUED

$\beta = 7^\circ$														
Left wing panel														
Station		Round-nose airfoil				Sharp-nose airfoil								
		$\alpha = -0.1^\circ$		$\alpha = 2.5^\circ$		$\alpha = 5.2^\circ$		$\alpha = 8.6^\circ$		$\alpha = 10.1^\circ$				
x/ a_T	$\frac{y}{W/2}$	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	
0.25	1	—	0.427	—	0.545	—	0.592	—	0.616	—	0.622	—	—	—
	.933	0.097	.194	-0.080	.377	-0.380	.447	-0.510	.579	-0.572	.622	—	—	
	.867	.038	.060	-0.120	.195	-0.305	.309	-0.501	.463	-0.560	.578	—	—	
	.800	.037	.044	-0.093	.166	-0.243	.270	-0.474	.420	-0.729	.473	—	—	
	.733	.036	.031	-0.077	.139	-0.208	.234	-0.442	.360	-0.512	.434	—	—	
	.667	—	.028	—	.123	—	.210	—	.350	—	.402	—	—	
	.533	.016	.027	-0.064	.106	-0.147	.188	-0.227	.317	-0.267	.367	—	—	
	.400	.006	.014	-0.063	.091	-0.138	.166	-0.223	.290	-0.248	.339	—	—	
	.267	.011	.011	-0.055	.083	-0.123	.156	-0.195	.277	-0.225	.365	—	—	
	0	.000	0	-0.063	.073	-0.106	.146	-0.194	.264	-0.220	.311	—	—	
0.50	1	—	.436	—	.500	—	.495	—	.433	—	.427	—	—	—
	.967	-.014	.006	-.265	.200	-.476	.339	-.720	.493	-.74	.565	—	—	
	.933	-.079	-.057	-.298	.106	-.508	.238	-.699	.403	-.719	.485	—	—	
	.900	—	.078	-.260	.066	-.477	.185	-.682	.347	-.716	.432	—	—	
	.867	-.089	-.073	-.238	.050	-.451	.161	-.667	.317	-.703	.403	—	—	
	.800	-.100	-.088	-.220	.018	-.400	.118	-.667	.266	-.685	.395	—	—	
	.733	-.102	-.102	-.208	-.006	-.304	.088	-.590	.238	-.664	.311	—	—	
	.667	-.113	-.108	-.202	-.020	-.294	.070	-.398	.211	-.592	.311	—	—	
	.600	—	.104	—	.021	—	.062	—	.203	—	.304	—	—	
	.533	-.106	-.101	-.183	-.023	-.255	.097	-.338	.194	-.370	.293	—	—	
	.467	-.100	-.094	-.176	-.020	-.234	.057	-.320	.200	-.354	.293	—	—	
	.400	-.101	-.089	-.171	-.019	-.241	.055	-.319	.193	-.349	.288	—	—	
	.267	-.088	—	-.156	—	-.222	—	-.291	—	-.317	—	—	—	
	.133	-.080	-.076	-.145	-.009	-.210	.065	-.265	.238	-.289	.310	—	—	
	0	—	-.083	—	-.014	—	.063	—	.241	—	.307	—	—	
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	.007	—	—	
	.953	-.130	-.144	-.381	.028	-.580	.165	-.794	.401	-.773	.446	—	—	
	.933	-.171	-.173	-.380	.016	-.585	.121	-.761	.356	-.776	.411	—	—	
	.912	-.168	-.196	-.357	-.047	-.568	.075	-.745	.348	-.761	.365	—	—	
	.889	-.199	-.204	-.348	-.062	-.548	.057	-.732	.301	-.733	.347	—	—	
	.867	—	.212	—	.076	—	.039	—	.205	—	.329	—	—	
	.845	-.203	-.205	-.331	-.076	-.584	.032	-.713	.279	-.742	.321	—	—	
	.800	-.202	-.192	-.315	-.082	-.501	.025	-.696	.272	-.732	.309	—	—	
	.776	-.194	-.178	-.298	-.074	-.426	.033	-.678	.274	-.718	.314	—	—	
	.711	-.182	—	-.276	—	-.345	—	-.644	—	-.698	—	—	—	
	.667	-.166	—	-.257	—	-.334	—	-.425	—	-.608	—	—	—	
	.622	-.153	-.148	-.243	-.047	-.318	.076	-.414	.283	-.536	.413	—	—	
	.578	-.137	-.133	-.225	-.031	-.297	.104	-.374	.291	-.450	.381	—	—	
	.533	-.125	-.119	-.217	-.019	-.286	.152	-.367	.295	-.419	.323	—	—	
	.446	—	-.090	—	.002	—	.198	—	.308	—	.336	—	—	

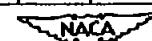


TABLE II.— CONTINUED

$\beta = 9^\circ$																
Right wing panel																
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil				
x/c_T	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	—	0.736	—	0.847	—	—	—	0.976	—	—	—	—	—	
	.933	0.163	.460	-0.007	.508	—	—	-0.325	.774	—	—	—	—	—	—	
	.867	.049	.146	-0.112	.293	—	—	-0.407	.582	—	—	—	—	—	—	
	.800	.028	.094	-0.129	.237	—	—	-0.428	.511	—	—	—	—	—	—	
	.733	.027	.062	-0.121	.194	—	—	-0.424	.453	—	—	—	—	—	—	
	.667	—	—	—	.166	—	—	—	.407	—	—	—	—	—	—	
	.533	0	.041	-0.097	.138	—	—	-0.329	.355	—	—	—	—	—	—	
	.400	-0.015	.027	-0.094	.108	—	—	-0.272	.309	—	—	—	—	—	—	
	.267	-0.111	.016	-0.080	.093	—	—	-0.219	.285	—	—	—	—	—	—	
	0	-0.003	.020	-0.046	.090	—	—	-0.186	.264	—	—	—	—	—	—	
0.50	1	—	—	.778	—	.862	—	—	—	.861	—	—	—	—	—	—
	.967	.075	.188	-.104	.370	—	—	-0.404	.676	—	—	—	—	—	—	
	.933	-.056	.051	-.226	.217	—	—	-0.525	.533	—	—	—	—	—	—	
	.900	—	0	—	.156	—	—	—	.451	—	—	—	—	—	—	
	.867	-.075	-.009	-.255	.133	—	—	-0.540	.410	—	—	—	—	—	—	
	.800	-.107	-.039	-.260	.077	—	—	-0.539	.335	—	—	—	—	—	—	
	.733	-.125	-.072	-.242	.033	—	—	-0.534	.281	—	—	—	—	—	—	
	.667	-.149	-.096	-.254	.006	—	—	-0.531	.249	—	—	—	—	—	—	
	.600	—	—	—	.099	—	—	-0.502	.237	—	—	—	—	—	—	
	.533	-.140	-.101	-.231	-.008	—	—	-0.469	.223	—	—	—	—	—	—	
	.467	-.132	-.095	-.215	-.007	—	—	-0.435	.223	—	—	—	—	—	—	
	.400	-.132	-.091	-.208	-.006	—	—	-0.394	.224	—	—	—	—	—	—	
	.267	-.113	—	—	-.182	—	—	-0.299	—	—	—	—	—	—	—	
	.133	-.094	-.063	-.160	.010	—	—	-0.257	.266	—	—	—	—	—	—	
	0	—	—	—	-.044	—	—	-0.283	—	—	—	—	—	—	—	
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.955	-.096	.017	-.264	.163	—	—	-0.634	.504	—	—	—	—	—	—	
	.933	-.133	-.049	-.293	.093	—	—	-0.611	.429	—	—	—	—	—	—	
	.912	-.160	-.083	-.321	.042	—	—	-0.614	.380	—	—	—	—	—	—	
	.889	-.180	-.113	-.334	.007	—	—	-0.607	.350	—	—	—	—	—	—	
	.867	—	—	—	.142	—	—	-0.525	—	—	—	—	—	—	—	
	.845	-.211	-.157	-.356	-.038	—	—	-0.604	.314	—	—	—	—	—	—	
	.800	-.233	-.169	-.367	-.051	—	—	-0.603	.304	—	—	—	—	—	—	
	.756	-.242	-.169	-.362	-.051	—	—	-0.600	.306	—	—	—	—	—	—	
	.711	-.238	—	—	.348	—	—	—	.593	—	—	—	—	—	—	
	.667	-.223	—	—	.333	—	—	—	.579	—	—	—	—	—	—	
	.622	-.209	-.155	-.314	-.049	—	—	-0.556	.313	—	—	—	—	—	—	
	.578	-.193	-.133	-.291	-.035	—	—	-0.516	.383	—	—	—	—	—	—	
	.533	-.182	-.128	-.277	-.017	—	—	-0.519	.333	—	—	—	—	—	—	
	.446	—	—	—	-.083	—	—	-0.391	—	—	—	—	—	—	—	



TABLE II.-- CONCLUDED

$\beta = 9^\circ$																
Left wing panel																
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil				
x/c_x	y/y_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	---	0.343	---	0.447	---	---	0.446	0.492	---	---	0.240	0.255	0.104	0.333	
	.933	0.081	.153	-0.090	.277	-	-	-	.205	-	-	.195	.194	.084	.283	
	.867	.031	.037	-0.112	.161	-	-	-	.416	-	-	.154	.171	.058	.244	
	.800	.031	.028	-0.084	.138	-	-	-	.383	-	-	.128	.138	.042	.211	
	.733	.031	.018	-0.072	.114	-	-	-	.347	-	-	.112	.124	.030	.191	
	.667	-	.015	-	.102	-	-	-	.323	-	-	.085	.093	.011	.124	
	.533	.012	.010	-0.065	.088	-	-	-	.294	-	-	.063	.065	-.009	.124	
	.400	.002	.003	-0.067	.073	-	-	-	.272	-	-	.050	.058	-.011	.109	
	.267	.007	-.004	-0.059	.066	-	-	-	.264	-	-	.025	.020	-.039	.076	
	0	-.010	-.018	-0.076	.052	-	-	-	.251	-	-	-	-	-	-.168	.273
0.50	1	---	.322	---	.392	---	---	.300	---	---	1	1	1	1	1	1
	.967	-.020	-.040	-0.285	.144	-	-	-	.484	-	-	.102	.102	-.068	.229	
	.933	-.074	-.086	-0.292	.067	-	-	-	.354	-	-	.045	.058	-.100	.160	
	.900	-	-.098	-0.244	.036	-	-	-	.305	-	-	.008	.003	-	.109	
	.867	-.089	-.095	-0.224	.023	-	-	-	.279	-	-	.007	.022	-.123	.077	
	.800	-.100	-.102	-0.206	.003	-	-	-	.237	-	-	.058	.063	-.165	.028	
	.733	-.100	-.111	-0.195	.022	-	-	-	.208	-	-	.085	.096	-.177	-.011	
	.667	-.110	-.115	-0.193	.031	-	-	-	.191	-	-	.095	.115	-.183	-.035	
	.600	-	-.109	-0.178	.032	-	-	-	.194	-	-	.103	.121	-.182	-.045	
	.533	-.104	-.106	-0.176	.033	-	-	-	.176	-	-	.100	.115	-.173	-.045	
0.75	.467	-.100	-.100	-0.170	.030	-	-	-	.180	-	-	.094	.105	-.168	-.037	
	.400	-.100	-.097	-0.169	.029	-	-	-	.184	-	-	.086	.097	-.156	-.034	
	.267	-.091	-	-.157	-.021	-	-	-	.208	-	-	.075	.084	-.137	-.019	
	.133	-.088	-.086	-0.150	.021	-	-	-	.214	-	-	.071	.074	-.125	-.007	
	0	---	-.097	---	.028	---	---	---	.205	---	---	.072	.079	-.122	-.006	
	1	---	---	---	---	---	---	---	---	---	---	1	1	1	1	
	.978	-	---	---	---	---	---	---	---	---	---	.015	---	-.222	---	
	.955	-.150	-.181	-0.368	-.007	---	---	---	.351	---	---	.055	.068	-.199	.046	
	.933	-.166	-.198	-0.347	-.040	---	---	---	.316	---	---	.121	.137	-.256	-.003	
	.912	-.180	-.215	-0.334	-.069	---	---	---	.280	---	---	.186	.174	-.274	-.042	
0.90	.889	-.186	-.215	-0.322	-.081	---	---	---	.267	---	---	.163	.216	-.290	-.074	
	.867	-	-.216	-	-.092	---	---	---	.254	---	---	.219	---	-.080	---	
	.845	-.188	-.208	-0.308	-.092	---	---	---	.248	---	---	.182	.216	-.303	-.092	
	.800	-.186	-.195	-0.290	-.092	---	---	---	.242	---	---	.175	.200	-.288	-.092	
	.756	-.177	-.181	-.272	-.082	---	---	---	.246	---	---	.188	---	-.092	---	
	.711	-.163	-	-.254	---	---	---	---	.246	---	---	.152	.164	-.243	-.067	
	.667	-.149	-	-.238	---	---	---	---	.234	---	---	.140	.150	-.223	-.066	
	.622	-.136	-.146	-.224	-.049	---	---	---	.234	---	---	.132	---	.215	---	
	.578	-.120	-.131	-.209	-.037	---	---	---	.263	---	---	.124	.141	-.209	-.047	
	.533	-.110	-.118	-.201	-.030	---	---	---	.256	---	---	.111	.135	-.198	-.038	
0.95	.446	---	-.089	---	-.009	---	---	---	.276	---	---	.090	.110	-.183	-.010	
	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	



TABLE III.—EXPERIMENTAL PRESSURE COEFFICIENTS
[M = 1.30]

		$\beta = 0^\circ$										$\beta = 0^\circ$											
		Round-nose airfoil					Sharp-nose airfoil																
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$			
x/c_r	y/w_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l		
0.25	1	—	—	0.551	—	0.654	—	0.721	—	0.749	—	0.747	—	—	—	—	—	—	—	—	—	—	
	.933	.013	.216	-0.022	.353	-0.164	.474	-0.358	.608	-0.421	.641	-0.352	0.374	0.193	0.488	-0.161	0.583	-0.572	0.684	-0.638	0.716		
	.867	.036	.086	-.111	.205	-.250	.337	-.412	.484	-.481	.529	.261	-.315	.153	.411	.041	.495	-.405	.618	-.513	.647		
	.800	.013	.035	-.115	.170	-.252	.292	-.420	.437	-.472	.480	.201	-.261	.105	.351	.003	.431	-.266	.575	-.426	.588		
	.733	.022	.026	-.093	.117	-.221	.237	-.387	.376	-.440	.426	.162	-.213	.073	.301	-.019	.380	-.114	.503	-.223	.538		
	.667	—	—	0.032	—	0.115	—	0.288	—	0.355	—	0.398	—	0.136	0.181	.052	.268	-.031	.347	-.121	.469	-.163	
	.533	.007	.028	-.071	.107	-.146	.201	-.274	.317	-.330	.355	.101	-.137	.030	.218	-.039	.293	-.118	.413	-.158	.443		
	.400	.003	.024	-.067	.094	-.129	.161	-.216	.292	-.229	.326	.072	-.098	.009	.175	-.054	.248	-.127	.365	-.164	.396		
	.267	.004	.020	-.059	.086	-.115	.167	-.193	.277	-.211	.312	.064	-.077	.005	.153	-.044	.222	-.114	.338	-.151	.365		
	0	.013	.021	-.044	.083	-.095	.161	-.164	.268	-.189	.303	.059	-.076	.007	.141	-.049	.202	-.105	.316	-.143	.341		
0.50	1	—	—	.549	—	.614	—	.624	—	.608	—	.588	—	—	—	—	—	—	—	—	—	—	
	.967	—	.059	.117	-.116	.284	-.274	.422	-.496	.566	-.586	.604	—	.235	.306	.036	.436	-.403	.526	-.606	.627	-.661	
	.933	-.031	.017	-.203	.176	-.346	.309	-.506	.554	-.576	.503	—	.168	-.233	.012	.343	-.272	.427	-.504	.537	-.574	.570	
	.900	—	—	-.016	—	.120	—	-.243	—	.393	—	—	—	.104	.160	-.018	.267	-.128	.351	-.464	.472	-.540	
	.867	—	—	-.055	—	.202	.100	-.356	.219	-.498	.357	-.573	.401	—	.076	.115	-.035	.216	-.137	.299	-.447	.419	-.522
	.800	—	—	-.077	—	.140	—	-.343	.168	-.492	.298	-.548	.343	—	.002	.049	-.094	.145	-.193	.223	-.436	.344	-.510
	.733	—	—	-.083	—	.065	—	-.309	.307	.126	-.461	.253	—	.041	-.009	-.123	.081	-.212	.159	-.363	.286	-.501	
	.667	—	—	-.099	—	.078	—	-.183	.010	-.275	.105	-.442	.229	—	.060	-.044	-.137	.038	-.218	.112	-.279	.238	-.410
	.600	—	—	-.091	—	.079	—	-.173	.006	-.252	.094	-.438	.213	—	.079	-.071	-.150	.007	-.222	.081	-.301	.211	-.325
	.533	—	—	-.093	—	.077	—	-.162	.004	-.234	.088	-.358	.209	—	.088	-.082	-.150	.003	-.223	.070	-.298	.199	-.326
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.955	—	—	-.088	—	.043	—	.240	—	.097	—	.428	.225	—	.580	.370	-.665	.417	—	.112	—	—	
	.933	—	—	.117	—	.074	—	.266	—	.046	—	.421	.170	—	.581	.314	-.652	.357	—	.062	—	—	
	.912	—	—	.138	—	—	—	.261	—	—	—	.417	—	—	.580	—	—	.644	—	—	.063	—	
	.889	—	—	.152	—	.128	—	.287	—	.014	—	.416	.106	—	.576	.243	-.634	.293	—	.097	—	—	
	.867	—	—	—	—	—	—	—	—	—	—	—	—	—	.080	—	—	.220	—	—	.272	—	
	.845	—	—	.174	—	.153	—	.288	—	.040	—	.427	.071	—	.575	.207	-.626	.261	—	.141	—	—	
	.800	—	—	.183	—	.160	—	.276	—	.044	—	.423	.054	—	.569	.187	-.614	.247	—	.159	—	—	
	.756	—	—	.182	—	.149	—	.269	—	.043	—	.400	.055	—	.556	.174	-.597	.247	—	.159	—	—	
0.90	1	—	—	.169	—	.151	—	.255	—	.054	—	.372	—	—	.541	.171	-.576	.255	—	.164	—	—	
	.667	—	—	.158	—	—	—	.229	—	—	—	.351	—	—	.526	—	—	.550	—	—	.147	—	
	.622	—	—	.152	—	.130	—	.223	—	.046	—	.320	.040	—	.517	.168	-.511	.315	—	.136	—	—	
	.578	—	—	.137	—	.124	—	.198	—	.043	—	.287	.042	—	.479	.179	—	.344	—	—	.126	—	
	.533	—	—	.135	—	.115	—	.196	—	.048	—	.272	.049	—	.371	.213	—	.450	—	—	.108	—	
	.446	—	—	—	—	—	—	—	—	—	—	—	—	—	.069	—	—	.304	—	—	.374	—	
	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

CONFIDENTIAL

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TABLE III.-- CONTINUED

$\delta = 5^\circ$																					
Right wing panel																					
		Round-nose airfoil						Sharp-nose airfoil													
Station		$\alpha=0.1^\circ$			$\alpha=2.5^\circ$			$\alpha=5.2^\circ$			$\alpha=8.6^\circ$			$\alpha=10.1^\circ$			$\alpha=0.0^\circ$				
x/c_x	$\frac{z}{v/2}$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	0.667	---	0.769	---	0.830	---	0.879	0.870	0.870	0.870	0.450	0.450	0.450	0.450	-0.148	0.683	-0.500	0.768	-0.566	0.806
	.933	0.167	.288	0.023	.418	-0.102	.533	-0.275	.680	-0.347	.708	0.387	0.387	0.387	0.387	.573	-0.363	.619	-0.428	.719	
	.867	.058	.126	-.084	.256	-0.210	.380	-0.350	.568	-0.427	.572	0.374	0.374	0.374	0.374	.469	0.115	.573	-0.363	.601	.372
	.800	.017	.080	-.118	.206	-0.243	.277	-0.378	.470	-0.444	.513	0.234	0.234	0.234	0.234	.398	0.036	.496	-0.272	.646	
	.733	.025	.035	-.102	.140	-0.231	.261	-0.372	.397	-0.426	.449	0.189	0.189	0.189	0.189	.336	0.001	.432	-0.098	.539	.300
	.667	---	.037	---	.138	---	.247	---	.374	---	.418	0.157	0.157	0.157	0.157	.297	-0.018	.387	-0.107	.495	.153
	.533	.008	.033	-.077	.126	-0.165	.213	-0.293	.327	-0.339	.368	0.115	0.115	0.115	0.115	.237	-0.034	.319	-0.126	.483	.158
	.400	.001	.028	-.073	.109	-0.144	.189	-0.240	.294	-0.271	.334	0.076	0.076	0.076	0.076	.184	-0.054	.261	-0.135	.363	.166
0	.257	.001	.020	-.066	.097	-0.127	.172	-0.202	.272	-0.219	.312	0.057	0.057	0.057	0.057	.151	-0.059	.227	-0.131	.385	.161
	0	.012	.025	-.046	.095	-0.099	.167	-0.167	.260	-0.184	.298	0.046	0.046	0.046	0.046	.060	-0.060	.203	-0.120	.295	.146
0.50	1	.661	---	.749	---	.765	---	.772	---	.743	---	0.288	0.288	0.288	0.288	.286	---	.627	0.536	.714	.588
	.967	.114	.189	-.061	.349	-0.203	.484	-0.401	.639	-0.506	.672	0.396	0.396	0.396	0.396	.300	0.622	.536	.761		
	.933	-.001	.071	-.171	.213	-0.294	.346	-0.436	.508	-0.511	.548	0.201	0.201	0.201	0.201	.417	0.198	.517	-0.436	.613	.488
	.900	---	.016	---	.163	---	.286	---	.434	---	.477	0.141	0.141	0.141	0.141	.315	0.085	.423	-0.428	.525	
	.867	-.034	.001	-.190	.138	-0.315	.253	-0.448	.393	-0.325	.437	0.109	0.109	0.109	0.109	.255	0.085	.357	-0.406	.510	
	.800	-.063	-.019	-.200	.096	-0.321	.193	-0.454	.323	-0.311	.368	0.026	0.026	0.026	0.026	.173	0.162	.267	-0.404	.368	.416
	.733	-.073	-.050	-.190	.047	-0.321	.143	-0.447	.268	-0.305	.314	0.032	0.032	0.032	0.032	.119	0.099	.202	0.192	.390	.453
	.667	-.103	-.069	-.199	.022	-0.311	.116	-0.449	.238	-0.280	.283	0.061	0.061	0.061	0.061	.137	0.048	.213	0.137	.287	.340
0.75	.600	-.100	-.073	-.192	.012	-0.278	.108	-0.402	.219	-0.265	.265	0.088	0.088	0.088	0.088	.162	0.010	.233	0.095	.307	.201
	.533	-.094	-.071	-.182	.006	-0.256	.093	-0.389	.206	-0.34	.251	0.101	0.101	0.101	0.101	.167	0.011	.236	0.074	.311	.184
	.467	-.098	-.066	-.171	.007	-0.238	.097	-0.365	.201	-0.303	.243	0.103	0.103	0.103	0.103	.168	0.011	.236	0.074	.309	.181
	.400	-.071	-.056	-.164	.007	-0.226	.086	-0.389	.189	-0.314	.231	0.099	0.099	0.099	0.099	.159	0.004	.223	0.079	.295	.185
	.367	-.063	-.045	-.144	.016	-0.191	.082	-0.256	.188	-0.275	.221	0.079	0.079	0.079	0.079	.135	0.014	.188	0.088	.255	.187
	.333	-.057	-.041	-.126	.016	-0.176	.087	-0.220	.181	-0.243	.226	0.061	0.061	0.061	0.061	.115	0.020	.159	0.092	.222	.186
	0	---	---	---	.118	.018	-.165	.088	-.216	.185	-.241	.236	0.055	0.055	0.055	0.055	.104	0.025	.143	0.098	.207
0.75	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	.978	---	---	---	---	---	---	---	---	---	---	.151	---	0.033	---	.330	---	.531	---	.570	
	.955	-.052	.080	-.205	.158	-.358	.276	-.526	.425	-.622	.457	.104	.170	0.046	.285	.298	.394	-.492	.489	-.532	
	.933	-.083	-.049	-.233	.090	-.358	.218	-.518	.399	-.603	.394	.016	.092	0.107	.194	.311	.299	-.483	.407	-.528	
	.912	-.108	---	---	.253	---	-.363	---	-.520	---	.599	---	.033	.030	0.145	.120	.312	.233	---	.337	
	.889	-.125	-.090	-.268	.080	-.371	.139	-.518	.673	-.591	.319	-.071	0.022	0.176	.069	.330	.171	-.490	.290	-.529	
	.867	---	---	---	.113	---	-.008	---	.107	---	.246	---	0.063	0.063	0.063	0.063	.028	0.028	.255	---	.350
	.845	-.155	-.124	-.286	.020	-.390	.095	-.517	.231	-.586	.279	-.123	0.092	0.220	0	.298	.099	-.497	.233	-.596	
	.800	-.173	-.136	-.294	.030	-.399	.074	-.514	.207	-.576	.266	-.151	0.119	0.238	0.030	.300	.074	-.497	.217	-.537	
	.756	-.182	-.135	-.294	.035	-.401	.071	-.524	.196	-.566	.246	0.142	0.142	0.052	0.052	.028	0.028	.196	---	.257	
	.711	-.178	-.145	-.280	.049	-.392	---	-.508	.180	-.550	.237	0.169	0.138	0.246	0.044	.329	.062	-.486	.196	-.568	
	.667	-.165	---	---	.252	---	.372	---	-.493	---	.537	---	0.166	0.136	0.241	0.039	.319	.067	-.462	.198	-.520
	.622	-.161	-.127	-.253	.041	-.337	.049	-.471	.165	-.512	.246	0.166	0.166	0.238	0	.315	0.131	0.390	0.185	0.258	
	.578	-.146	-.125	-.226	.041	-.320	.050	---	.163	---	.278	0.161	0.129	0.230	0.035	.310	.061	-.370	.182	0.454	
	.533	-.144	-.115	-.213	.036	-.304	.054	-.446	.173	-.481	.308	0.148	0.121	0.216	0.031	.299	.063	-.366	.182	0.394	
	.446	---	0.086	---	0.016	---	0.068	---	0.260	---	0.401	0.129	0.108	0.194	0.031	.264	0.064	0.345	0.228	0.374	



TABLE III.—CONTINUED

$\beta = 5^\circ$																	
Left wing panel																	
Station		Round-nose airfoil			Sharp-nose airfoil												
x/c_T	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l		
0.25	1	—	—	0.450	—	—	0.599	—	—	0.609	—	—	0.616	—	—	—	
	.933	0.107	.157	-0.050	.288	-0.219	.400	-0.422	.530	-0.486	.581	0.279	0.279	0.151	0.402	-0.123	
	.867	.036	.092	-0.106	.173	-0.268	.293	-0.442	.469	-0.521	.454	.234	.248	.111	.335	-.005	
	.800	.021	.036	-0.097	.150	-0.230	.257	-0.396	.392	-0.481	.444	.174	.205	.076	.286	-.017	
	.733	.031	.030	-0.075	.108	-0.191	.213	-0.372	.343	-0.494	.397	.142	.168	.053	.245	-.029	
	.667	—	—	—	.019	—	.108	—	.206	—	.328	.375	.122	.145	.039	.222	-.039
	.533	.018	.023	-0.058	.100	-0.129	.185	-0.224	.297	-0.258	.344	.092	.108	.019	.180	-.047	
	.400	.014	.019	-0.054	.090	-0.116	.169	-0.199	.276	-0.219	.323	.071	.079	.004	.143	-.058	
	.267	.015	.017	-0.048	.083	-0.105	.160	-0.180	.266	-0.207	.311	.067	.063	.008	.187	-.053	
	0	.018	.015	-0.043	.078	-0.097	.153	-0.164	.258	-0.192	.304	.047	.057	-.010	.114	-.060	
0.50	1	—	—	.394	—	—	.464	—	—	.465	—	—	.544	—	—	—	
	.967	.027	.041	-0.175	.219	-0.358	.346	-0.568	.490	-0.677	.528	.173	.210	.014	.340	-.472	
	.933	-.040	-.068	-0.288	.128	-0.408	.248	-0.565	.386	-0.644	.443	.111	.152	-.026	.258	-.259	
	.900	—	—	-0.077	—	—	.088	—	—	.203	—	—	.344	—	—	—	
	.867	-.055	-.049	-0.185	.071	-0.372	.179	-0.518	.314	-0.599	.363	.073	.096	-.054	.189	-.137	
	.800	-.068	-.058	-0.174	.041	-0.322	.138	-0.493	.267	-0.568	.315	.049	.059	-.064	.150	-.160	
	.733	-.069	-.075	-0.164	.014	-0.280	.104	-0.475	.231	-0.553	.278	.013	.004	-.114	.089	-.203	
	.667	-.080	-.082	-0.163	.002	-0.248	.088	-0.467	.218	-0.525	.258	.064	.040	-.131	.039	-.213	
	.600	-.080	-.079	-0.158	-.001	-0.242	.081	-0.317	.205	-0.419	.246	.077	-.089	-.148	-.011	-.219	-.067
	.533	-.077	-.076	-0.146	.004	-0.214	.084	-0.282	.190	-0.308	.234	.077	-.088	-.148	-.014	-.217	-.068
0.75	1	—	—	.135	—	—	.187	—	—	.191	—	—	.261	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.955	-.100	-.101	-0.263	.128	-0.459	.173	-0.600	.318	-0.684	.389	.021	.021	-.109	.138	-.432	
	.933	-.129	-.129	-0.301	.007	-0.456	.125	-0.597	.275	-0.680	.326	.098	-.037	-.176	.064	-.417	
	.912	-.139	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.889	-.149	-.159	-0.292	-.041	-0.446	.074	-0.587	.212	-0.662	.291	.114	-.134	-.227	-.026	-.371	-.062
	.867	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.845	-.172	-.178	-0.275	-.058	-0.439	.045	-0.581	.183	-0.655	.281	.151	-.160	-.251	-.064	-.312	-.048
	.800	-.162	-.164	-0.264	-.058	-0.409	.034	-0.568	.172	-0.639	.284	.199	-.172	-.255	-.059	-.332	-.043
	.756	-.159	-.150	-0.249	-.054	-0.386	.036	-0.551	.173	-0.626	.288	—	—	—	—	—	—
0	.711	-.148	-.158	-0.233	-.066	-0.340	—	—	—	—	—	—	—	—	—	—	—
	.667	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.622	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.578	-.113	-.124	-0.183	-.047	-0.242	.039	—	—	—	—	—	—	—	—	—	—
	.533	-.108	-.114	-0.178	-.041	-0.233	.050	-0.316	.270	-0.351	.344	-.107	-.111	-.167	-.026	-.237	-.045
0	.446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

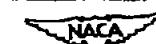


TABLE III.— CONTINUED

$B = 9^\circ$														
Right wing panel														
Station		Round-nose airfoil			Sharp-nose airfoil									
x/c_x	y/z	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	0.759	—	0.871	—	—	—	0.980	—	—	—	—	—
	.933	0.203	.347	0.088	.486	—	—	—	.0211	.137	—	—	—	—
	.867	.085	.163	-.051	.290	—	—	—	.397	.562	—	—	—	—
	.800	.029	.105	-.104	.230	—	—	—	.338	.495	—	—	—	—
	.733	.031	.049	-.099	.154	—	—	—	.339	.415	—	—	—	—
	.667	—	.041	—	.149	—	—	—	.391	—	—	—	—	—
	.533	.009	.033	-.086	.134	—	—	—	.312	.336	—	—	—	—
	.400	-.008	.069	-.082	.111	—	—	—	.257	.296	—	—	—	—
	.267	-.003	.080	-.074	.098	—	—	—	.210	.269	—	—	—	—
0	0	.011	.024	-.049	.094	—	—	—	.166	.252	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—	—	—
	.967	.164	.290	.004	.379	—	—	—	.321	.692	—	—	—	—
	.933	.026	.113	-.116	.231	—	—	—	.371	.342	—	—	—	—
	.900	—	.053	—	.198	—	—	—	.465	—	—	—	—	—
	.867	-.014	.086	-.157	.170	—	—	—	.400	.420	—	—	—	—
	.800	-.047	-.002	-.180	.119	—	—	—	.411	.343	—	—	—	—
	.733	.066	-.036	-.190	.067	—	—	—	.412	.260	—	—	—	—
	.667	-.101	-.060	-.205	.035	—	—	—	.424	.246	—	—	—	—
0.50	.600	-.105	-.070	-.200	.019	—	—	—	.422	.284	—	—	—	—
	.533	.106	-.075	-.193	.009	—	—	—	.398	.207	—	—	—	—
	.467	-.101	-.074	-.183	.007	—	—	—	.371	.198	—	—	—	—
	.400	-.100	-.070	-.174	.007	—	—	—	.352	.192	—	—	—	—
	.267	-.079	-.059	-.192	.014	—	—	—	.258	.188	—	—	—	—
	.133	-.068	-.048	-.189	.021	—	—	—	.215	.180	—	—	—	—
	0	-.058	-.039	-.117	.025	—	—	—	.209	.182	—	—	—	—
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—
	.935	-.011	.074	-.195	.209	—	—	—	.463	.468	—	—	—	—
	.933	-.049	-.007	-.187	.135	—	—	—	.456	.393	—	—	—	—
	.912	-.076	—	-.213	—	—	—	—	.461	—	—	—	—	—
	.889	-.098	-.054	-.229	.058	—	—	—	.460	.298	—	—	—	—
	.867	—	-.082	—	.026	—	—	—	.464	.268	—	—	—	—
	.845	-.133	-.096	-.273	.010	—	—	—	.464	.231	—	—	—	—
	.800	-.136	-.113	-.271	-.006	—	—	—	.467	.226	—	—	—	—
0	.756	-.171	-.117	-.282	-.017	—	—	—	.472	.211	—	—	—	—
	.711	-.176	-.132	-.282	-.039	—	—	—	.472	.192	—	—	—	—
	.667	-.169	—	-.257	—	—	—	—	.470	—	—	—	—	—
	.622	-.169	-.131	-.265	-.039	—	—	—	.462	.171	—	—	—	—
	.578	-.155	-.121	-.240	-.037	—	—	—	.449	.167	—	—	—	—
	.533	-.132	-.117	-.239	-.032	—	—	—	.446	.169	—	—	—	—
	.446	—	-.083	—	-.006	—	—	—	.208	—	—	—	—	—

NACA

TABLE III.— CONCLUDED

$\beta = 90^\circ$																
Left wing panel																
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil				
z/c_T	y/w_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	—	0.359	—	0.454	—	—	—	0.484	—	—	—	—	—	
	.933	0.088	.113	—0.061	.236	—	—	—0.456	.457	—	—	0.230	0.214	0.128	0.342	
	.867	.030	.028	—0.101	.146	—	—	—0.451	.390	—	—	.187	.194	.091	.284	
	.500	.018	.021	—0.087	.126	—	—	—0.402	.360	—	—	.146	.160	.064	.244	
	.733	.028	.001	—0.067	.090	—	—	—0.307	.316	—	—	.120	.131	.046	.212	
	.667	—	—	—0.10	—	—	—	—0.307	.300	—	—	.102	.113	.036	.193	
	.533	.014	.012	—0.055	.086	—	—	—0.208	.279	—	—	.075	.084	.018	.159	
	.400	.010	.010	—0.054	.078	—	—	—0.193	.264	—	—	.060	.060	.004	.131	
	.267	.011	.007	—0.049	.072	—	—	—0.179	.255	—	—	.059	.049	.005	.118	
	0	.007	—	—0.001	—0.053	.065	—	—0.177	.266	—	—	.031	.029	—0.012	.097	
0.50	1	—	—	.256	—	.357	—	—	—	.294	—	—	—	—	—	
	.967	.019	—0.006	—0.205	.163	—	—	—0.604	.407	—	—	.133	.133	—0.004	.271	
	.933	—0.41	—0.058	—0.220	.086	—	—	—0.585	.336	—	—	.074	.064	—0.036	.202	
	.900	—	—	—0.072	—	—	—	—0.58	.305	—	—	.042	.038	—0.064	.139	
	.867	—0.06	—0.071	—0.181	.043	—	—	—0.529	.280	—	—	.023	.011	—0.072	.109	
	.800	—0.068	—0.076	—0.168	.018	—	—	—0.550	.239	—	—	.030	—0.034	—0.116	.056	
	.733	—0.067	—0.087	—0.156	—0.001	—	—	—0.509	.208	—	—	.074	—0.066	—0.128	.017	
	.667	—0.079	—0.090	—0.156	—0.010	—	—	—0.265	.191	—	—	.071	—0.090	—0.135	.006	
	.600	—0.078	—0.086	—0.149	—0.008	—	—	—0.294	.181	—	—	.078	—0.100	—0.140	.020	
	.533	—0.076	—0.083	—0.192	—0.006	—	—	—0.279	.177	—	—	.079	—0.098	—0.136	.019	
0.75	1	—	—	.142	—	.266	—	—	—	.261	.179	—	—	.073	—0.088	—0.129
	.967	—0.072	—0.077	—0.133	—0.009	—	—	—0.297	.177	—	—	.066	—0.079	—0.116	.007	
	.900	—0.072	—0.067	—0.131	—0.002	—	—	—0.236	.166	—	—	.052	—0.060	—0.102	.007	
	.867	—0.064	—0.069	—0.120	—0.007	—	—	—0.225	.171	—	—	.043	—0.048	—0.092	.014	
	.800	—0.059	—0.065	—0.110	—0.004	—	—	—0.236	.163	—	—	.045	—0.044	—0.093	.006	
	0	—0.062	—0.074	—0.121	—0.018	—	—	—0.236	.163	—	—	—	—	—	.222	
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.174	
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

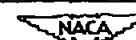


TABLE IV.— EXPERIMENTAL PRESSURE COEFFICIENTS
[$M = 1.40$]

$\beta = 0^\circ$																							
Round-nose airfoil																							
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=6.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil											
x/or	y/w _E	P _U	P _I	P _U	P _I	P _U	P _I	P _U	P _I	P _U	P _I												
0.25	1	---	0.553	---	0.653	---	0.698	---	0.763	---	0.653	---	0.340	0.367	0.201	0.480	-0.065	0.578	-0.440	0.605	-0.507	0.707	
	.933	0.133	.271	0.003	.388	-0.158	.463	-0.259	.615	-0.320	.653	.205	.254	.386	.134	.394	.079	.510	-0.310	.621	-0.394	.649	
	.867	.075	.107	-.071	.214	-.187	.318	-.304	.472	-.376	.517	.163	.169	.259	.089	.382	.042	.436	-.239	.546	-.385	.578	
	.800	.033	.069	-.086	.159	-.198	.271	-.317	.419	-.383	.463	.126	.197	.253	.053	.256	.016	.371	-.075	.484	-.249	.517	
	.733	.011	.039	-.079	.138	-.185	.236	-.382	.378	-.373	.416	.084	.118	.209	-.009	.158	-.043	.280	-.133	.396	-.155	.431	
	.667	---	.089	---	.121	---	.211	---	.338	---	.391	.054	.080	.125	-.030	.125	-.056	.230	-.137	.344	-.158	.380	
	.600	.013	.030	-.059	.110	-.189	.187	-.247	.308	-.298	.343	.042	.055	.095	-.035	.095	-.056	.196	-.132	.309	-.151	.347	
	.540	.004	.025	-.058	.098	-.116	.165	-.203	.270	-.228	.319	.035	.044	.042	-.042	.078	-.057	.174	-.122	.276	-.143	.312	
	0	.016	.025	-.039	.054	-.088	.147	-.149	.246	-.172	.283	---	---	---	---	---	---	---	---	---	---	---	
0.50	1	---	.602	---	.668	---	.678	---	.662	---	.653	---	.243	.317	.077	.431	-.268	.519	-.483	.632	-.553	.647	
	.967	.093	.139	-.057	.283	-.202	.408	-.367	.593	-.457	.593	.152	.254	.254	.030	.339	-.170	.439	-.396	.547	-.458	.567	
	.933	-.009	.032	-.148	.172	-.273	.284	-.388	.437	-.468	.482	---	.185	---	---	.293	-.067	.378	-.381	.489	-.448	.519	
	.900	---	.003	---	.184	-.298	.230	---	.381	-.471	.423	---	.130	.049	.195	-.091	.316	-.371	.433	-.432	.463		
	.867	-.089	.013	-.168	.108	-.294	.207	-.386	.348	.461	.391	.083	.058	.110	.115	.169	-.234	-.377	.347	-.430	.388		
	.800	-.055	-.030	-.171	.068	-.286	.156	-.393	.288	-.450	.389	0	-.033	.013	.134	.046	.183	.198	.363	.271	-.420	.309	
	.733	-.069	-.051	-.160	.034	-.269	.117	-.390	.241	-.440	.285	---	.061	.047	.158	.004	.190	-.114	.285	.220	-.381	.261	
	.667	-.086	-.066	-.166	.014	-.247	.095	-.379	.211	-.427	.275	---	.080	.072	.168	-.027	.200	.077	.283	.190	-.296	.230	
	.600	---	.069	---	.007	---	.084	---	.200	---	.246	---	.093	.089	.182	-.047	.267	-.200	.077	.283	.190	-.296	.230
	.533	-.065	-.071	-.193	.001	-.212	.075	-.343	.182	-.367	.227	---	.093	.089	.177	-.042	.211	.067	.178	-.330	.221	---	
0.75	.667	-.079	-.065	-.143	.004	-.198	.075	-.266	.179	-.310	.223	---	.092	.077	.174	-.028	.201	.082	-.262	.185	-.301	.229	
	.600	-.060	-.066	-.140	.005	-.191	.072	-.261	.173	-.271	.217	---	.070	.077	.170	-.029	.193	.071	-.271	.188	-.290	.228	
	.540	-.067	---	.124	---	.172	---	.229	---	.291	---	---	.058	.043	.127	-.009	.136	.083	-.206	.183	-.254	.221	
	.484	-.027	-.044	-.111	.024	-.157	.076	-.203	.168	-.222	.220	---	.050	.021	.119	-.016	.134	.083	-.203	.171	-.222	---	
	0	---	.045	---	.013	---	.072	---	.166	---	.205	---	---	---	---	---	---	---	---	---	---	---	
	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	.978	---	---	---	---	---	---	---	---	---	---	---	1.43	---	---	0.043	---	---	0.302	---	---	0.473	---
	.933	-.068	.006	-.175	.189	-.336	.232	-.423	.388	-.517	.434	.097	.131	-.051	.232	-.277	.340	-.443	.498	-.505	.489		
	.933	-.062	.026	-.202	.077	-.333	.167	-.436	.337	-.515	.370	.013	.067	.182	.143	-.260	.262	-.445	.361	-.515	.429		
	.912	-.063	.068	-.221	.037	-.359	.132	-.431	.281	-.511	.325	.036	.062	.162	.092	-.294	.207	-.329	-.311	---	.377		
	.889	-.102	-.086	-.232	.009	-.344	.107	-.433	.253	-.506	.298	.068	.029	.178	.035	-.263	.249	-.447	.273	-.497	.383		
	.857	---	.107	---	.034	---	.083	---	.227	---	.271	---	.063	---	.001	---	.113	---	.235	---	.307	---	
	.845	-.129	-.115	-.247	.025	-.351	.073	-.436	.213	-.503	.298	.108	.096	.215	.031	-.250	.079	-.454	.212	-.497	.267		
	.800	-.147	-.124	-.254	.035	-.351	.056	-.441	.188	-.497	.233	-.133	.115	.235	.050	-.273	.084	-.454	.206	-.495	.268		
	.756	-.152	-.124	-.242	.035	-.343	.054	-.441	.180	-.491	.226	---	.137	---	.075	---	.041	---	.184	---	.312	---	
	.711	-.149	---	.234	---	.386	---	.431	---	.478	---	---	.144	.131	.234	-.068	.265	.053	-.443	.206	-.461	.260	
	.667	-.141	---	.222	---	.304	---	.416	---	.467	---	---	.147	.129	.240	-.063	.281	.075	-.425	.215	-.463	.261	
	.622	-.139	-.115	-.208	-.040	-.281	.040	-.406	.163	-.452	.205	---	.146	---	.237	---	.353	1	---	.439	---		
	.578	-.125	-.110	-.193	-.037	-.256	.041	-.394	.168	-.451	.207	---	.142	.120	.289	-.058	.271	.068	-.351	.177	-.367	.218	
	.533	-.118	-.103	-.185	-.038	-.246	.042	-.395	.164	-.412	.206	---	.134	.109	.260	-.040	.250	.064	-.334	.171	-.342	.212	
	.486	---	.081	---	.023	---	.044	---	.163	---	.231	---	.116	.102	.194	-.037	.227	.055	-.308	.158	-.384	.205	



TABLE IV.— CONTINUED

$\beta = 5^\circ$																							
Right wing panel																							
Station		Round-nose airfoil				Sharp-nose airfoil																	
x/c _r	y/w _E	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t	P _u	P _t								
0.25	1	—	0.664	—	0.764	—	0.828	—	0.891	—	0.888	—	0.415	0.453	0.282	0.579	0.002	0.652	-0.331	0.783	-0.417	0.808	
	.933	.076	.344	0.062	.462	-0.056	.566	-0.176	.693	-0.259	.723	.323	.398	.209	.496	.124	.573	-0.225	.699	-0.302	.784		
	.867	.083	.156	-0.030	.262	-0.143	.399	-0.246	.512	-0.329	.561	.320	.151	.406	.074	.486	-0.183	.609	-0.257	.636			
	.800	.044	.099	-0.069	.200	-0.177	.299	-0.275	.447	-0.355	.497	.253	.245	.105	.329	.039	.411	-0.118	.523	-0.226	.562		
	.733	.031	.060	-0.079	.159	-0.178	.295	-0.283	.394	-0.349	.443	.199	.209	.066	.293	-0.002	.373	-0.082	.496	-0.170	.524		
	.667	—	0.35	—	.133	—	.225	—	.351	—	.399	.153	.135	.098	.223	-0.045	.302	-0.132	.421	-0.153	.451		
	.533	.005	.028	-0.074	.155	-0.149	.196	-0.263	.312	-0.303	.355	.098	.135	.020	.223	-0.045	.302	-0.139	.357	-0.164	.388		
	.400	-0.009	.023	-0.072	.056	-0.133	.157	-0.221	.272	-0.258	.313	.060	.096	.006	.167	-0.064	.242	-0.139	.314	-0.159	.346		
	.267	.004	.015	-0.058	.082	-0.109	.150	-0.177	.252	-0.200	.291	.040	.059	-0.018	.125	-0.068	.198	-0.138	.276	-0.146	.305		
	0	.002	.021	-0.047	.082	-0.096	.144	-0.153	.238	-0.178	.277	.031	.047	-0.021	.105	-0.067	.169	-0.127	.276	-0.146	.305		
0.50	1	—	.735	—	.813	—	.831	—	.820	—	.801	—	—	—	—	—	—	—	—	—	—	—	
	.967	.151	.218	-0.014	.354	-0.123	.474	-0.271	.623	-0.391	.663	.315	.408	.154	.534	-0.182	.610	-0.397	.732	-0.471	.803		
	.933	.028	.095	-0.094	.222	-0.225	.339	-0.311	.494	-0.412	.535	.224	.331	.102	.440	-0.088	.512	-0.318	.627	-0.381	.657		
	.900	—	0.093	—	.167	—	.247	—	.273	—	.421	—	.427	.469	—	.297	—	.350	-0.033	.437	-0.307	.561	
	.867	.008	.026	-0.130	.146	-0.250	.257	-0.337	.385	-0.421	.431	.131	.192	.016	.285	-0.051	.371	-0.301	.493	-0.362	.521		
	.800	-0.040	.006	-0.066	.154	.101	.259	.188	.352	.315	.420	.359	.034	.111	.059	.193	-0.140	.278	-0.324	.395	-0.373	.426	
	.733	-0.058	-0.033	-0.166	.059	-0.264	.141	-0.355	.261	-0.419	.306	.009	.029	-0.097	.108	-0.167	.191	-0.323	.309	-0.375	.342		
	.667	-0.088	-0.054	-0.178	.029	-0.270	.110	-0.370	.228	-0.419	.272	-0.041	.039	-0.121	.058	-0.187	.137	-0.296	.248	-0.371	.329		
	.600	—	0.062	—	.034	—	.095	—	.210	—	.253	-0.072	.079	.146	.016	-0.200	.092	-0.280	.205	-0.316	.239		
	.533	-0.095	-0.069	-0.170	.006	-0.232	.061	-0.345	.188	-0.388	.233	-0.090	.079	-0.158	.008	-0.217	.070	-0.303	.180	-0.380	.220		
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.933	.010	.075	-0.119	.191	-0.284	.287	-0.375	.436	-0.489	.486	.211	.314	.025	.235	—	.401	—	.471	—	.558		
	.900	-.034	.032	-0.154	.133	-0.279	.211	-0.384	.369	-0.476	.410	.060	.137	.058	.234	-0.229	.324	-0.382	.442	-0.439	.474		
	.867	-.058	-.020	-0.177	.065	-0.294	.171	-0.386	.314	-0.478	.361	.006	.083	-0.101	.175	-0.249	.262	—	.383	—	.419		
	.800	-.078	-.045	-0.193	.053	-0.305	.137	-0.388	.279	-0.475	.326	-0.025	.026	-0.125	.111	-0.250	.196	-0.396	.317	-0.447	.353		
	.733	—	0.059	—	.023	—	.109	—	.249	—	.298	—	.018	—	.066	—	.153	—	.267	—	.310		
	.667	—	0.111	—	.005	—	.331	—	.393	—	.474	—	.280	-0.082	.055	-0.171	.027	-0.226	.111	-0.408	.233	-0.452	.278
	.600	-0.137	-.103	-0.238	.015	-0.344	.072	-0.405	.203	-0.472	.249	-0.112	.080	-0.198	.001	-0.254	.086	-0.434	.217	-0.495	.270		
	.533	-0.149	-.107	-0.247	.022	-0.389	.065	-0.411	.191	-0.469	.239	—	.110	—	.050	—	.055	—	.188	—	.238		
	.471	-0.156	—	—	.251	—	.231	—	.413	—	.462	—	.135	.110	.215	.030	.279	.059	.411	.193	.448	.241	
	.400	-0.159	—	—	.243	—	.323	—	.412	—	.456	—	.141	.116	.219	.035	.263	.054	.410	.201	.441	.267	
	.344	-0.166	—	—	.233	—	.308	—	.403	—	.446	—	.146	.116	.223	—	.263	—	.400	—	.436	—	
	.288	-0.142	—	—	.221	—	.038	—	.285	—	.414	—	.156	.117	.203	—	.037	—	.359	—	.189	—	
	.232	-0.138	—	—	.211	—	.035	—	.274	—	.411	—	.156	.116	.202	—	.022	—	.351	—	.182	—	
	.176	-0.146	—	—	.087	—	.027	—	.044	—	.153	—	.203	.128	.107	.192	—	.060	—	.342	—	.163	—



TABLE IV.-- CONTINUED

$\beta = 5^\circ$																						
Left wing panel																						
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$				
x/or	y x/E	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l			
0.25	1	- - -	0.425	- - -	0.522	- - -	0.584	- - -	0.618	- - -	0.647	- - -	0.331	0.331	0.170	0.413	-0.012	0.517	-0.496	0.577	-0.549	0.627
	.933	.0107	.204	-0.033	.317	-0.169	.423	-0.331	.541	-0.365	.590	.331	0.331	0.170	0.413	-0.012	0.517	-0.496	0.577	-0.549	0.627	
	.867	.048	.062	-0.083	.176	-0.214	.264	-0.372	.490	-0.396	.486	.250	.269	.128	.360	.070	.453	.419	.534	-0.486	.577	
	.800	.039	.040	-0.072	.145	-0.203	.247	-0.341	.379	-0.375	.440	.197	.233	.092	.298	.022	.389	.154	.479	-0.368	.519	
	.733	.041	.027	-0.061	.124	-0.172	.218	-0.316	.341	-0.353	.398	.165	.180	.069	.294	.004	.332	.127	.427	-0.156	.473	
	.667	- - -	0.265	- - -	.112	- - -	.197	- - -	.315	- - -	.367	.134	.158	.046	.225	-.021	.307	.119	.406	-0.161	.454	
	.533	.025	.029	-0.045	.101	-0.112	.178	-0.211	.266	-0.256	.332	.099	.117	.022	.180	-.039	.259	.124	.359	-0.150	.406	
	.400	.017	.025	-0.046	.068	-0.103	.158	-0.181	.261	-0.202	.303	.070	.070	.006	.143	-.050	.218	.127	.318	-0.157	.366	
	.267	.023	.018	-0.035	.079	-0.086	.149	-0.156	.250	-0.180	.287	.061	.066	.004	.121	-.051	.194	.122	.293	-0.138	.340	
	0	.019	.016	-0.037	.075	-0.089	.145	-0.153	.241	-0.186	.271	.046	.046	-.007	.095	-.058	.170	-.127	.264	-0.182	.311	
0.50	1	- - -	.468	- - -	.534	- - -	.553	- - -	.518	- - -	.497	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
	.967	.054	.069	-0.117	.229	-0.277	.350	-0.473	.484	-0.510	.516	.215	.268	.042	.361	-.336	.462	.574	.588	-.585	.575	
	.933	.014	.014	-0.188	.189	-0.312	.251	-0.467	.391	-0.506	.434	.145	.197	.008	.285	-.224	.386	.488	.463	-.518	.512	
	.900	- - -	.400	-0.175	.091	-0.320	.206	-0.468	.335	-0.499	.388	- - -	-.141	- - -	.228	-.116	.329	.460	.415	-.497	.464	
	.867	.036	.039	-0.127	.077	-0.308	.184	-0.454	.309	-0.490	.358	.066	.094	-.041	.173	-.111	.275	.431	.369	-.481	.419	
	.800	.048	.048	-0.148	.044	-0.279	.140	-0.428	.258	-0.472	.304	-.007	.088	-.098	.107	-.176	.201	.414	.299	-.472	.350	
	.733	.060	.065	-0.145	.017	-0.245	.108	-0.409	.222	-0.448	.268	-.036	.089	-.110	.048	-.182	.136	.274	.237	-.429	.289	
	.667	.071	.072	-0.148	.003	-0.221	.087	-0.375	.199	-0.438	.245	-.056	.079	-.122	.012	-.187	.098	.263	.199	-.294	.253	
	.600	- - -	0.072	- - -	.008	- - -	.078	- - -	.195	- - -	.240	-.074	.081	-.129	-.007	.193	.073	.268	.184	-.289	.237	
	.533	.068	.071	-0.139	.005	-0.197	.070	-0.344	.175	-0.277	.218	-.083	.088	-.139	.011	.202	.087	.272	.176	-.294	.229	
	.467	.063	.063	-0.127	0	-0.185	.072	-0.239	.182	-0.269	.218	-.079	.073	-.189	.001	.190	.075	.259	.176	-.279	.226	
	.400	.060	.060	-0.124	.001	-0.181	.068	-0.241	.172	-0.274	.206	-.072	.069	-.124	.005	.180	.076	.248	.182	-.269	.231	
	.367	.056	.056	-0.112	- - -	-0.163	- - -	-0.217	- - -	-0.258	- - -	-.025	-.054	-.103	.011	-.154	.064	-.220	.173	-.282	.220	
	.133	.050	.048	-0.103	.009	-0.149	.073	-0.208	.166	-0.234	.191	-.043	-.037	-.090	.017	-.188	.081	-.197	.168	-.220	.212	
	0	- - -	0.053	- - -	.004	- - -	.068	- - -	.160	- - -	.204	-.043	-.052	-.089	.010	-.133	.076	-.204	.162	-.224	.209	
0.75	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
	.978	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-.117	-.117	-.069	- - -	-.360	- - -	-.581	- - -	-.563	- - -	
	.935	.061	.064	-0.226	.075	-0.358	.192	-0.508	.334	-0.513	.403	-.06%	-.071	-.176	-.388	.277	-.558	.311	-.549	-.439		
	.933	.081	.106	-0.239	.025	-0.363	.141	-0.529	.276	-0.522	.326	-.016	-.010	-.186	.110	.332	.210	-.593	.325	-.543	.381	
	.912	.099	.114	-0.244	-.001	-0.360	.108	-0.520	.244	-0.514	.310	-.063	-.031	-.159	.066	-.334	.163	-.585	-.285	-.542	.342	
	.889	.113	.129	-0.242	-.021	-0.364	.087	-0.520	.221	-0.511	.288	-.086	-.079	-.173	.015	-.307	.113	-.511	.239	-.529	.298	
	.867	- - -	.140	- - -	.037	- - -	.067	- - -	.200	- - -	.264	-.116	-.110	-.014	- - -	.084	- - -	.212	- - -	.271	- - -	
	.845	.127	.143	-0.231	.043	-0.368	.059	-0.505	.188	-0.509	.250	-.186	-.110	-.040	-.253	.060	-.503	.197	-.588	.259		
	.800	.134	.140	-0.229	.047	-0.349	.048	-0.491	.170	-0.506	.229	-.143	-.148	-.048	-.263	.093	-.495	.194	-.583	.250		
	.756	.132	.128	-0.220	.041	-0.347	.048	-0.473	.166	-0.495	.222	-.174	-.161	-.058	-.241	.041	-.397	.202	-.505	.256		
	.711	.125	- - -	-0.207	- - -	-0.305	- - -	-0.459	- - -	-0.492	- - -	-.141	-.144	-.201	-.041	-.279	.070	-.397	.192	-.505	.241	
	.667	.116	- - -	-0.193	- - -	-0.279	- - -	-0.423	- - -	-0.501	- - -	-.133	-.131	-.194	-.013	-.273	.085	-.337	.192	-.417	.241	
	.622	.108	.111	-0.180	.039	-0.255	.039	-0.389	.160	-0.473	.212	-.127	-.112	-.186	-.021	-.261	-.332	-.332	-.332	-.332	- - -	
	.578	.097	.105	-0.169	.036	-0.230	.048	-0.292	.164	-0.387	.217	-.118	-.112	-.173	-.012	-.249	.062	-.328	.162	-.344	.212	
	.533	.092	.097	-0.159	.030	-0.217	.050	-0.275	.166	-0.306	.228	-.106	-.104	-.153	-.006	-.226	.060	-.296	.157	-.326	.211	
	.446	- - -	.083	- - -	.017	- - -	.055	- - -	.187	- - -	.273	-.094	-.099	-.145	-.012	-.203	.054	-.274	.164	-.296	.249	

NACA

TABLE IV.— CONTINUED

$\beta = 9^\circ$											
Right wing panel											
Round-nose airfoil											
Station	$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		
x/c_x	y	$y/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	--	0.737	--	0.870	--	--	0.987	--	--	
	.933	.193	.382	0.117	.536	--	-.119	.745	--	--	
	.867	.094	.179	.010	.306	--	-.205	.548	--	--	
	.800	.049	.112	-.047	.232	--	-.249	.473	--	--	
	.733	.026	.067	-.056	.186	--	-.255	.413	--	--	
	.667	--	.032	--	.150	--	-.272	.321	--	--	
	.533	-.016	.012	-.079	.127	--	-.272	.321	--	--	
	.400	-.031	.007	-.082	.101	--	-.240	.275	--	--	
	.267	-.026	-.004	-.069	.115	--	-.193	.250	--	--	
	0	-.020	-.001	-.049	.116	--	-.156	.234	--	--	
0.50	1	--	.822	--	.930	--	--	.943	--	--	
	.967	.176	.265	.082	.425	--	-.197	.691	--	--	
	.933	.041	.124	-.039	.260	--	-.262	.539	--	--	
	.900	--	.074	--	.209	--	-.305	.419	--	--	
	.867	.021	.048	-.091	.184	--	-.317	.340	--	--	
	.800	-.039	.008	-.120	.132	--	-.329	.279	--	--	
	.733	-.060	-.029	-.143	.065	--	-.343	.239	--	--	
	.667	-.099	-.059	-.167	.051	--	-.220	.191	--	--	
	.600	--	-.069	--	.031	--	-.335	.185	--	--	
	.533	-.112	-.073	-.180	.011	--	-.315	.177	--	--	
0.75	1	--	.867	-.081	.167	.011	--	-.269	.168	--	
	.900	-.113	-.082	-.162	.018	--	-.208	.168	--	--	
	.867	-.100	--	-.137	--	--	-.167	--	--	--	
	.733	-.080	-.057	-.119	.084	--	-.167	--	--	--	
	0	--	-.051	--	.030	--	-.047	-.031	-.098	.026	

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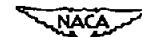


TABLE IV.— CONCLUDED

$\beta = 9^\circ$ Left wing panel																			
Station		$\alpha=0.0^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$	
x/a_r	y/w_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	-0.103	0.347	-0.039	0.438	-0.272	-	-0.367	0.516	-	-	0.273	0.263	0.149	0.353	-	-	-0.441	0.323
	.933	.049	.048	-.076	.153	-	-	-.384	.364	-	-	.211	.238	.105	.307	-	-	-.409	.486
	.867	.039	.034	-.063	.132	-	-	-.339	.350	-	-	.171	.191	.076	.256	-	-	-.261	.437
	.800	.046	.069	-.046	.115	-	-	-.323	.318	-	-	.144	.149	.059	.215	-	-	-.178	.397
	.733	-.067	-.069	-.069	.107	-	-	-.295	.293	-	-	.180	.133	.041	.198	-	-	-.123	.386
	.533	.037	.031	-.033	.100	-	-	-.191	.273	-	-	.069	.100	.022	.162	-	-	-.112	.342
	.400	-.027	.025	-.036	.084	-	-	-.173	.252	-	-	.070	.074	.008	.194	-	-	-.121	.310
	.267	.033	.019	-.026	.078	-	-	-.150	.244	-	-	.065	.058	.008	.117	-	-	-.116	.290
0.50	1	-.021	.013	-.037	.071	-	-	-.160	.236	-	-	.040	.027	-.016	.085	-	-	-.133	.261
	.967	.054	.033	-.137	.186	-	-	-.506	.431	-	-	.173	.187	.018	.297	-	-	-.595	.467
	.933	-.007	-.068	-.170	.112	-	-	-.479	.353	-	-	.112	.137	-.014	.230	-	-	-.518	.412
	.900	-	-.043	-.155	.074	-	-	-.471	.309	-	-	-.096	-.096	-	.181	-	-	-.490	.377
	.867	-.068	-.041	-.142	.064	-	-	-.459	.287	-	-	.047	.058	-.044	.142	-	-	-.419	.340
	.800	-.042	-.047	-.134	.038	-	-	-.446	.284	-	-	.036	.003	-.098	.084	-	-	-.336	.279
	.733	-.047	-.058	-.129	.017	-	-	-.437	.213	-	-	.038	.042	-.104	.036	-	-	-.316	.230
	.667	-.053	-.063	-.125	.014	-	-	-.339	.197	-	-	.057	.065	-.110	.011	-	-	-.279	.206
	.600	-	-.061	-.115	.015	-	-	-.247	.198	-	-	.069	.080	-.112	.002	-	-	-.253	.193
	.533	-.055	-.064	-.117	-.002	-	-	-.247	.177	-	-	.073	.083	-.122	.009	-	-	-.246	.168
	.467	-.050	-.055	-.109	.004	-	-	-.228	.183	-	-	.069	.073	-.111	.001	-	-	-.239	.155
	.400	-.052	-.051	-.109	.004	-	-	-.228	.177	-	-	.062	.057	-.105	.001	-	-	-.227	.189
	.367	-.044	-.047	-.101	-	-	-	-.209	-	-	-	.051	.051	-.094	-.009	-	-	-.206	.174
	.333	-.043	-.047	-.103	.006	-	-	-.205	.165	-	-	.045	.047	-.081	-.014	-	-	-.191	.174
	0	-.055	-	-.001	-	-	-	-.157	-	-	-	.050	.060	-.094	-.002	-	-	-.203	.168
0.75	1	-.062	-.087	-.236	.049	-	-	-.526	.312	-	-	.061	-.080	-.014	.132	-	-	-.589	.353
	.978	-.062	-.087	-.236	.049	-	-	-.537	.255	-	-	.041	-.083	-.132	-.251	-	-	-.560	.353
	.955	-.074	-.119	-.234	.002	-	-	-.524	.230	-	-	.037	-.083	-.137	.073	-	-	-.551	.284
	.933	-.074	-.126	-.227	-.013	-	-	-.521	.209	-	-	.075	-.067	-.155	.034	-	-	-.533	.232
	.912	-.093	-.126	-.227	-.013	-	-	-.508	.180	-	-	.092	-.109	-.177	.009	-	-	-.526	.208
	.889	-.103	-.136	-.220	-.030	-	-	-.521	.209	-	-	.191	-.133	-.133	.033	-	-	-.511	.196
	.867	-	-.144	-	-.041	-	-	-.496	.165	-	-	.125	-.151	-.196	.051	-	-	-.486	.198
	.845	-.113	-.143	-.215	-.043	-	-	-.482	.170	-	-	.137	-.157	-.205	.050	-	-	-.511	.196
	.800	-.115	-.134	-.206	-.046	-	-	-.463	-.000	-	-	.124	-.137	-.186	-.027	-	-	-.446	.205
	.756	-.118	-.123	-.194	-.040	-	-	-.463	-.000	-	-	.114	-.122	-.170	-.018	-	-	-.318	.188
	.711	-.105	-	-.161	-	-	-	-.328	-	-	-	.108	-.162	-.162	-	-	-	-.322	-
	.667	-.097	-	-.169	-	-	-	-.301	.163	-	-	.103	-.108	-.153	-.012	-	-	-.309	.164
	.622	-.091	-.105	-.161	-.036	-	-	-.275	.170	-	-	.093	-.103	-.141	-.013	-	-	-.287	.167
	.578	-.083	-.098	-.149	-.031	-	-	-.266	.176	-	-	.086	-.093	-.134	-.019	-	-	-.257	.212
	.533	-.078	-.090	-.142	-.023	-	-	-.209	-	-	-	-	-	-	-	-	-	-	
	.446	-.082	-	-.007	-	-	-	-.000	-	-	-	-	-	-	-	-	-	-	



TABLE V.—EXPERIMENTAL PRESSURE COEFFICIENTS
[$M = 1.53$]

$\beta = 0^\circ$																						
Station		$\alpha = -0.1^\circ$		$\alpha = 2.5^\circ$		$\alpha = 5.2^\circ$		$\alpha = 8.6^\circ$		$\alpha = 10.1^\circ$		Sharp-nose airfoil										
x/c_x	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l			
0.25	1	.593	-.076	.671	-.032	.722	-.117	.767	-.211	.805	-.483	.384	.380	.486	.064	.563	.286	.687	.377	.689		
	.933	.177	.257	.076	.360	.132	.458	.162	.216	.213	.239	.291	.237	.201	.415	.095	.406	.191	.596	.279	.621	
	.867	.061	.125	.082	.222	.117	.317	.216	.453	.353	.239	.225	.272	.148	.351	.092	.421	.152	.230	.242	.559	
	.800	.034	.080	.061	.173	.155	.266	.241	.405	.272	.484	.225	.222	.105	.297	.023	.368	.090	.477	.204	.508	
	.733	.036	.041	.060	.114	.192	.215	.292	.344	.286	.376	.177	.222	.105	.258	.006	.334	.088	.440	.153	.474	
	.667	—	—	.035	—	.110	—	.206	—	.325	—	.354	.146	.105	.077	.258	—	.111	.376	.139	.411	
	.533	.021	.031	.052	.100	.118	.179	.220	.286	.247	.314	.106	.134	.041	.201	.011	.276	.115	.322	.137	.357	
	.400	.014	.028	.049	.089	.103	.159	.184	.258	.211	.284	.077	.094	.019	.156	.020	.222	.105	.290	.125	.325	
	.267	.012	.024	.046	.079	.093	.146	.159	.238	.173	.264	.064	.071	.011	.129	.023	.193	.077	.273	.125	.307	
	0	.023	.028	.031	.079	.076	.140	.133	.229	.151	.253	.053	.066	.004	.121	.039	.179	.104	.273	.125	.307	
0.50	1	.589	—	.620	—	.649	—	.650	—	.630	—	—	—	—	—	—	—	—	—	—	—	
	.967	.151	.192	.016	.293	.104	.418	.260	.522	.388	.580	.286	.341	.126	.458	.181	.545	.352	.641	.432	.674	
	.933	.050	.090	.061	.190	.175	.303	.289	.440	.339	.470	.204	.271	.085	.367	.092	.454	.282	.552	.351	.588	
	.900	—	—	.032	—	.140	—	.246	—	.385	—	.407	.162	.213	.053	.299	.086	.380	.297	.486	.337	.581
	.867	0	.012	.110	.118	.207	.219	.297	.349	.389	.377	.129	.165	.026	.250	.036	.329	.293	.437	.324	.468	
	.800	.025	.011	.130	.084	.218	.171	.308	.268	.338	.317	.056	.098	.032	.172	.113	.251	.259	.358	.325	.386	
	.733	.039	.032	.133	.048	.225	.127	.310	.240	.334	.268	.015	.038	.064	.108	.144	.184	.259	.392	.325	.388	
	.667	.061	.046	.142	.025	.229	.102	.324	.210	.351	.238	.017	.005	.068	.065	.158	.134	.220	.245	.311	.266	
	.600	.076	.051	.142	.015	.213	.087	.307	.193	.292	.224	.042	.035	.108	.031	.173	.096	.231	.203	.257	.233	
	.533	.065	.056	.133	.009	.193	.083	.292	.187	.309	.216	.051	.051	.118	.015	.176	.072	.238	.185	.258	.212	
	.467	.062	.046	.125	.015	.180	.083	.275	.177	.302	.206	.058	.053	.124	.013	.177	.074	.238	.178	.257	.214	
	.400	.061	.049	.123	.005	.173	.070	.243	.174	.270	.199	.059	.051	.118	.017	.169	.073	.224	.177	.243	.212	
	.267	.053	.044	.109	.007	.155	.067	.203	.150	.215	.185	.042	.031	.098	.032	.147	.087	.194	.186	.214	.219	
	.133	.046	.037	.100	.012	.143	.070	.192	.159	.200	.181	.027	.016	.082	.046	.126	.087	.168	.184	.190	.204	
	0	.046	.040	.096	.008	.138	.066	.186	.153	.202	.176	.019	.010	.069	.041	.115	.086	.176	.178	.204	—	
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	.204	—	.045	—	.212	—	.322	—	.322	—	—
	.975	.008	.047	.099	.163	.228	.264	.334	.395	.350	.424	.162	.191	.030	.285	.193	.361	.332	.461	.396	.496	
	.933	.021	.008	.130	.118	.231	.206	.342	.348	.369	.371	.087	.131	.018	.218	.202	.288	.319	.395	.396	.426	
	.912	.046	—	.132	—	.244	—	.345	—	.366	—	.046	.080	.048	.166	.199	.230	—	.337	—	.369	
	.889	.063	.050	.164	.048	.254	.138	.347	.268	.369	.293	.010	.036	.080	.112	.215	.176	.326	.285	.398	.316	
	.867	—	—	.077	—	.082	—	.107	—	.235	—	.266	—	.002	—	.076	—	.139	—	.251	—	.282
	.845	.090	.082	.186	.009	.272	.092	.351	.220	.375	.250	.041	.025	.124	.047	.195	.109	.398	.227	.403	.258	
	.800	.107	.093	.199	.006	.281	.072	.358	.197	.363	.227	.069	.034	.147	.016	.217	.075	.341	.204	.401	.239	
	.756	.120	.093	.209	.011	.286	.066	.361	.200	.384	.214	—	.080	—	.011	—	.047	—	.179	—	.212	
	.711	.119	.106	.204	.028	.285	.046	.363	.178	.387	.199	.097	.081	.164	.008	.235	.048	.335	.184	.394	.228	
	.667	.115	—	.186	—	.328	—	.359	—	.382	—	.104	.090	.166	.012	.234	.052	.332	.182	.384	.218	
	.622	.115	.100	.191	.031	.263	.044	.342	.156	.384	.188	.107	—	.169	—	.231	—	.285	—	.370	—	
	.578	.103	.096	.166	.024	.238	.044	—	.155	—	.179	.108	.092	.166	.014	.226	.054	.289	.163	.330	.200	
	.533	.104	.089	.171	.024	.230	.049	.332	.160	.349	.182	.104	.087	.160	.010	.212	.055	.280	.158	.398	.195	
	.446	—	—	.088	—	.024	—	.051	—	.149	—	.173	.094	.080	.146	.016	.197	.046	.264	.142	.384	.177

NACA

TABLE V.— CONTINUED

$\delta = 5^\circ$													
Right wing panel													
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil	
x/a_r	$\frac{y}{l}$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	—	—	0.713	—	0.777	—	0.832	—	0.897	—	0.877	—
	.933	0.230	—	.329	0.131	.429	0.019	.519	-0.097	.657	-0.164	.577	0.418
	.867	.111	.167	.021	.268	.075	.360	.165	.494	.234	.518	.339	.388
	.800	.049	.108	-.035	.207	-.124	.297	-.205	.434	-.263	.458	.262	.323
	.733	.042	.073	-.043	.133	-.130	.231	-.217	.363	-.270	.395	.204	.261
	.667	—	.041	—	.180	—	.215	—	.339	—	.368	.166	.216
	.533	.011	.023	-.068	.101	-.145	.181	-.236	.293	-.261	.320	.112	.152
0.50	.400	0.	.020	-.068	.087	-.128	.157	-.206	.259	-.225	.285	.076	.101
	.267	-.003	.012	-.063	.073	-.113	.137	-.175	.234	-.186	.259	.056	.067
	0	-.006	.014	-.047	.069	-.094	.127	-.142	.219	-.158	.241	.039	.058
	1	—	—	.710	—	.725	—	.773	—	.805	—	.775	—
	.967	.196	.251	.081	.363	.050	.469	-.160	.631	-.269	.620	.324	.433
	.933	.071	.129	-.037	.237	-.141	.334	-.229	.496	-.299	.523	.262	.349
	.900	—	.068	—	.178	—	.281	—	.486	—	.447	.213	.279
0.75	.867	.019	.042	-.073	.147	-.172	.247	-.257	.386	-.313	.405	.175	.222
	.800	-.018	.007	-.105	.104	-.192	.191	-.274	.317	-.323	.338	.088	.149
	.733	-.039	-.028	-.123	.061	-.205	.139	-.280	.298	-.326	.280	.037	.076
	.667	-.070	-.051	-.152	.031	-.228	.106	-.300	.219	-.341	.242	.003	.025
	.600	-.078	-.060	-.156	.016	-.228	.087	-.303	.197	-.312	.220	-.031	.013
	.533	-.082	-.064	-.159	.004	-.228	.074	-.305	.178	-.322	.205	-.050	.037
	.467	-.081	-.066	-.147	-.001	-.207	.053	-.288	.176	-.308	.195	-.061	.047
1.00	.400	-.081	-.065	-.143	-.003	-.196	.042	-.275	.160	-.290	.184	-.065	.051
	.267	-.071	-.058	-.125	.003	-.166	.038	-.229	.153	-.231	.174	-.057	.043
	.133	-.060	-.048	-.110	.006	-.154	.042	-.206	.149	-.206	.175	-.043	.015
	0	-.035	-.046	-.102	.006	-.144	.043	-.191	.144	-.203	.167	-.033	.019
	1	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—
	.925	.037	.096	-.094	.210	-.181	.305	-.292	.440	-.354	.458	.206	.253
1.25	.933	.003	.023	-.090	.158	-.189	.247	-.299	.384	-.363	.396	.121	.182
	.918	-.026	—	-.114	—	-.208	—	-.306	—	-.366	—	.073	.123
	.889	-.044	-.021	-.130	.079	-.221	.164	-.308	.284	-.366	.311	.032	.078
	.857	—	-.046	—	.049	—	.127	—	.252	—	.280	—	.034
	.845	-.078	-.066	-.158	.032	-.224	.110	-.319	.233	-.371	.262	-.025	.002
	.800	-.102	-.080	-.177	.012	-.258	.084	-.330	.206	-.373	.234	-.056	.033
	.756	-.118	-.087	-.191	.001	-.268	.076	-.338	.198	-.378	.280	—	-.066
1.50	.711	-.124	-.104	-.198	-.082	-.271	.060	-.342	.172	-.378	.201	-.077	-.077
	.667	-.123	—	-.184	—	-.270	—	-.343	—	-.378	—	-.108	-.108
	.622	-.129	-.105	-.203	-.027	-.273	.043	-.341	.147	-.368	.178	-.117	-.117
	.578	-.120	-.107	-.186	-.037	-.268	.035	—	.141	—	.176	-.123	-.101
	.533	-.123	-.103	-.194	-.035	-.260	.050	-.335	.148	-.353	.181	-.121	-.103
	.446	—	-.095	—	-.034	—	.044	—	.140	—	.173	-.121	-.101
	0	—	—	—	—	—	—	—	—	—	—	—	—

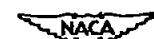


TABLE V.—CONTINUED

$\beta = 5^\circ$																										
Left wing panel																										
		Round-nose airfoil												Sharp-nose airfoil												
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=6.6^\circ$		$\alpha=10.1^\circ$				$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=6.6^\circ$		$\alpha=10.1^\circ$				
x/c_x	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l			
0.25	1	-	-	0.407	-	0.546	-	0.595	-	0.632	-	0.667	-	-	-	0.306	0.288	0.195	0.406	-0.025	0.506	-0.397	0.577	-0.436	0.522	
	.933	0.145	.187	0.026	.286	-0.088	.387	-0.243	.507	-0.262	.555	.245	.258	.157	.348	.075	.438	.223	.330	.571	.323	.330	.571			
	.867	.064	.074	-	-	.043	.181	-.147	.262	-.290	.412	.169	.192	.215	.115	.297	.034	.383	-.190	.473	-.279	.521	-.179	.480		
	.800	.039	.049	-.059	.146	-.159	.244	-.285	.373	-.293	.429	.156	.177	.086	.257	.011	.339	-.092	.431	-.179	.480	-.115	.403			
	.733	.043	.019	-.053	.101	-.145	.202	-.269	.327	-.293	.373	.133	.151	.070	.229	-.002	.310	-.097	.404	-.115	.403	-.101	.401			
	.667	-	-	.025	-	.100	-	.196	-	.308	-	.356	.103	.111	.052	.181	-.014	.259	-.101	.351	-.115	.357	-.104	.357		
	.533	.049	.025	-.043	.091	-.097	.173	-.189	.278	-.242	.321	.079	.082	.037	.144	-.026	.218	-.104	.310	-.112	.312	-.104	.312			
	.400	.022	.024	-.042	.081	-.087	.177	-.156	.254	-.187	.294	.076	.076	.034	.126	-.027	.196	-.094	.267	-.098	.332	-.117	.312			
0.50	1	-	-	.428	-	-	.489	-	-	.523	-	.514	-	-	-	.216	.238	.086	.368	-.238	.472	-.455	.548	-.475	.586	
	.967	.095	.101	-.049	.223	.169	.356	-.368	.481	-.355	.531	.151	.181	.052	.295	-.129	.393	-.372	.478	-.410	.514	-.382	.464			
	.933	.012	.012	-.121	.155	.229	.263	-.376	.389	-.369	.442	.115	.136	.025	.233	-.044	.327	-.352	.417	-.382	.464	-.369	.424			
	.900	-	-	.015	-	.106	-	.215	-	.343	-	.399	.090	.099	.008	.191	-.062	.284	-.335	.377	-.369	.424	-.363	.395		
	.867	-.009	-.022	-.125	.088	-.232	.192	-.368	.313	-.354	.366	.029	.045	.038	.123	-.116	.215	-.320	.310	-.363	.395	-.242	.301			
	.800	-.029	-.029	-.127	.058	-.234	.150	-.356	.262	-.359	.312	.004	.004	.066	.074	-.134	.161	-.242	.255	-.348	.301	-.219	.262			
	.733	-.037	-.045	-.123	.028	-.215	.115	-.342	.222	-.352	.269	.028	.033	.088	.040	-.141	.120	-.214	.219	-.256	.262	-.177	.239			
	.667	-.052	-.055	-.132	.011	-.196	.095	-.319	.198	-.348	.249	.024	.053	-.102	.018	-.158	.091	-.223	.197	-.242	.239	-.177	.239			
	.600	-.051	-.056	-.116	.006	-.187	.086	-.282	.191	-.327	.237	.050	.058	-.109	.004	-.153	.081	-.221	.188	-.240	.222	-.177	.239			
	.533	-.050	-.055	-.119	.008	-.170	.086	-.243	.177	-.320	.222	.050	.058	-.109	.004	-.153	.081	-.221	.188	-.240	.222	-.177	.239			
	.467	-.048	-.052	-.113	.004	-.157	.077	-.208	.174	-.244	.220	.051	.060	-.110	.005	-.149	.085	-.217	.192	-.237	.233	-.177	.233			
	.400	-.049	-.047	-.110	.007	-.151	.075	-.208	.172	-.243	.209	.049	.053	-.102	.011	-.135	.089	-.205	.186	-.224	.235	-.177	.234			
	.297	-.042	-.044	-.099	.004	-.136	.072	-.186	.166	-.212	.197	.031	.032	-.084	.028	-.126	.108	-.177	.189	-.199	.219	-.177	.219			
	.133	-.038	-.040	-.091	.006	-.128	.074	-.183	.160	-.200	.197	.018	.023	-.071	.037	-.115	.101	-.161	.177	-.182	.219	-.178	.217			
	0	-.041	-.046	-.093	.001	-.130	.069	-.182	.154	-.201	.191	-.015	-.020	-.066	.043	-.110	.094	-.159	.175	-.178	.217	-.178	.217			
0.75	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.147	-	-.008	-	-	-.260	-	-.456	-	-.473	-
	.978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.106	.106	-.006	.215	-.238	.306	-.427	.393	-.452	.435	
	.925	-.023	-.023	-.139	.110	-.257	.208	-.441	.338	-.393	.386	.042	.054	-.055	.151	-.236	.241	-.407	.334	-.430	.381	-.336	.386			
	.933	-.046	-.064	-.164	.078	-.265	.175	-.437	.289	-.401	.362	.006	.011	-.076	.105	-.222	.191	-.268	-	-.268	-	-.336	-	.336		
	.912	-.068	-	-.179	-	-.271	-	-.435	-	-.401	-	.025	-.039	-.107	.059	-.225	.144	-.404	-.247	-.424	-.298	-.336	-.275	-.336		
	.889	-.080	-.088	-.187	.011	-.278	.108	-.431	.227	-.401	.202	-.025	-.039	-.107	.059	-.225	.144	-.404	-.247	-.424	-.298	-.336	-.275	-.336		
	.867	-.104	-	-.210	-	-.310	-	-.633	-	.206	-	.258	-	-	.053	-.142	.010	.199	.092	.405	.205	.426	.260	.275		
	.845	-.099	-.108	-.197	-.019	-.291	.075	-.426	.195	-.404	.245	-.066	-.071	-.142	.010	-.199	.092	-.405	.205	.426	.260	.275	.260			
	.800	-.108	-.110	-.199	-.026	-.295	.060	-.415	.178	-.405	.226	-.083	-.092	-.158	-.014	-.220	.070	-.397	.194	-.423	.250	-.336	-.275			
	.756	-.111	-.104	-.199	-.027	-.284	.061	-.400	.186	-.400	.220	-.083	-.107	-.034	-.000	-.228	.070	-.397	.194	-.423	.250	-.336	-.275			
	.711	-.105	-.109	-.191	-.038	-.264	.073	-.389	.166	-.393	.213	-.094	-.100	-.162	-.080	-.228	.070	-.393	.194	-.413	.245	-.336	-.275			
	.687	-.087	-	-.170	-	-.246	-	-.363	-	-.388	-	-.094	-.097	-.158	-.016	-.220	.077	-.288	.185	-.393	-.230	-.336	-.275			
	.622	-.093	-.097	-.171	-.033	-.229	.092	-.339	.195	-.379	.198	-.092	-.153	-.024	-.000	-.214	-.027	-.277	-.034	-.315	-.213	-.294	-.213			
	.578	-.081	-.091	-.150	-.032	-.206	.050	-.322	.152	-.377	.183	-.084	-.088	-.147	-.006	-.204	.075	-.271	-.034	-.294	-.213	-.280	-.204			
	.533	-.083	-.085	-.153	-.029	-.200	.062	-.296	.158	-.377	.200	-.077	-.079	-.137	-.003	-.194	.072	-.254	.153	-.280	-.204	-.277	-.182			
	.446	-	-	-.078	-	-.023	-	-.062	-	-.154	-	-.195	-.067	-.123	-.006	-.173	.050	-.235	.136	-.277	-.182	-.277	-.182			

NACA

CONFIDENTIAL

TABLE V.—CONTINUED

$\delta = 9^\circ$																	
Right wing panel																	
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil					
x/c_x	$\frac{x}{c_x}$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	—	—	0.776	—	—	—	—	—	—	—	—	—	—	—	—	—
	.933	0.267	.376	0.196	.510	—	—	—	—	—	—	—	—	—	—	—	—
	.867	.144	.207	.052	.309	—	—	—	—	—	—	—	—	—	—	—	—
	.800	.070	.134	-.017	.237	—	—	—	—	—	—	—	—	—	—	—	—
	.733	.056	.072	-.026	.153	—	—	—	—	—	—	—	—	—	—	—	—
	.667	—	—	.047	—	—	—	—	—	—	—	—	—	—	—	—	—
	.533	-.005	.013	-.061	.100	—	—	—	—	—	—	—	—	—	—	—	—
	.400	-.024	0	-.087	.079	—	—	—	—	—	—	—	—	—	—	—	—
	.267	-.028	-.008	-.083	.066	—	—	—	—	—	—	—	—	—	—	—	—
	0	-.018	-.005	-.062	.056	—	—	—	—	—	—	—	—	—	—	—	—
0.50	1	—	—	.818	—	—	.887	—	—	—	—	—	—	—	—	—	—
	.967	.245	.306	.137	.436	—	—	—	—	—	—	—	—	—	—	—	—
	.933	.103	.170	.013	.290	—	—	—	—	—	—	—	—	—	—	—	—
	.900	—	—	.110	—	—	.215	—	—	—	—	—	—	—	—	—	—
	.867	.046	.076	-.020	.187	—	—	—	—	—	—	—	—	—	—	—	—
	.800	-.001	.038	-.063	.131	—	—	—	—	—	—	—	—	—	—	—	—
	.733	-.086	-.012	-.107	.080	—	—	—	—	—	—	—	—	—	—	—	—
	.667	-.087	-.043	-.138	.044	—	—	—	—	—	—	—	—	—	—	—	—
	.600	-.072	-.060	-.161	.025	—	—	—	—	—	—	—	—	—	—	—	—
	.533	-.093	-.069	-.167	.008	—	—	—	—	—	—	—	—	—	—	—	—
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.925	.079	.146	-.023	.257	—	—	—	—	—	—	—	—	—	—	—	—
	.933	.037	.103	-.060	.180	—	—	—	—	—	—	—	—	—	—	—	—
	.912	.003	—	-.089	—	—	—	—	—	—	—	—	—	—	—	—	—
	.889	-.019	.017	-.107	.109	—	—	—	—	—	—	—	—	—	—	—	—
	.867	—	—	.016	—	—	.077	—	—	—	—	—	—	—	—	—	—
	.845	-.028	-.033	-.139	.057	—	—	—	—	—	—	—	—	—	—	—	—
	.800	-.085	-.056	-.161	.035	—	—	—	—	—	—	—	—	—	—	—	—
	.756	-.107	-.068	-.178	.017	—	—	—	—	—	—	—	—	—	—	—	—
1.00	.711	-.119	-.089	-.186	.011	—	—	—	—	—	—	—	—	—	—	—	—
	.667	-.113	—	-.173	—	—	—	—	—	—	—	—	—	—	—	—	—
	.622	-.134	-.106	-.201	.024	—	—	—	—	—	—	—	—	—	—	—	—
	.578	-.131	-.112	-.192	.039	—	—	—	—	—	—	—	—	—	—	—	—
	.533	-.142	-.125	-.209	.038	—	—	—	—	—	—	—	—	—	—	—	—

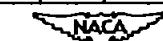


TABLE V.— CONCLUDED

$\beta = 9^\circ$															
Left wing panel															
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil			
r/a_x	$y/v/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	—	—	0.367	—	0.479	—	—	—	0.536	—	—	—	—	—
	.933	0.119	.146	.017	.262	—	—	-0.275	.470	—	—	0.252	0.285	0.199	0.353
	.867	.066	.050	-.046	.163	—	—	-.310	.382	—	—	.229	.222	.130	.307
	.800	.044	.043	-.054	.136	—	—	-.279	.352	—	—	.181	.190	.099	.268
	.733	.052	.024	-.040	.099	—	—	-.256	.311	—	—	.153	.161	.076	.237
	.667	—	—	.033	—	.100	—	—	—	—	—	.138	.143	.064	.214
	.533	.041	.034	-.009	.093	—	—	—	—	—	—	.117	.114	.048	.177
	.400	.035	.031	-.030	.063	—	—	—	—	—	—	.102	.091	.034	.147
	.267	.033	.027	-.028	.077	—	—	—	—	—	—	.106	.081	.033	.109
	0	.027	.018	-.030	.070	—	—	—	—	—	—	.066	.063	.010	.110
0.50	1	—	—	.340	—	.430	—	—	—	.419	—	—	—	—	—
	.967	.072	.063	-.068	.201	—	—	—	—	.414	.444	—	—	—	—
	.933	.016	0	-.137	.123	—	—	—	—	.409	.366	—	—	—	—
	.900	—	—	.019	—	.097	—	—	—	—	.326	—	—	—	—
	.867	-.004	-.020	-.119	.063	—	—	—	—	.381	.500	—	—	—	—
	.800	-.019	-.026	-.115	.056	—	—	—	—	.351	.256	—	—	—	—
	.733	-.024	-.039	-.111	.030	—	—	—	—	.337	.233	—	—	—	—
	.667	-.036	-.047	-.115	.016	—	—	—	—	.342	.208	—	—	—	—
	.600	-.041	-.046	-.110	.012	—	—	—	—	.293	.193	—	—	—	—
	.533	-.037	-.045	-.105	.015	—	—	—	—	.209	.181	—	—	—	—
0.75	.467	-.033	-.041	-.098	.011	—	—	—	—	.194	.184	—	—	—	—
	.400	-.035	-.033	-.097	.016	—	—	—	—	.195	.179	—	—	—	—
	.267	-.028	-.037	-.087	.010	—	—	—	—	.178	.164	—	—	—	—
	.133	-.026	-.034	-.082	.012	—	—	—	—	.175	.163	—	—	—	—
	0	-.031	-.042	-.086	.006	—	—	—	—	.179	.158	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.955	-.035	-.063	-.158	.081	—	—	—	—	.451	.297	—	—	—	—
	.933	-.052	-.091	-.180	.056	—	—	—	—	.453	.258	—	—	—	—
	.912	-.070	—	—	.188	—	—	—	—	.449	.201	—	—	—	—
0.90	.889	-.079	-.105	-.189	-.003	—	—	—	—	.445	.201	—	—	—	—
	.867	—	—	.116	—	.020	—	—	—	.184	—	—	—	—	—
	.845	-.091	-.117	-.192	-.025	—	—	—	—	.439	.174	—	—	—	—
	.800	-.094	-.115	-.189	-.030	—	—	—	—	.426	.163	—	—	—	—
	.756	-.093	-.103	-.184	-.046	—	—	—	—	.418	.161	—	—	—	—
	.711	-.088	-.105	-.172	-.036	—	—	—	—	.412	.153	—	—	—	—
	.667	-.070	—	—	.152	—	—	—	—	.362	.153	—	—	—	—
	.622	-.077	-.087	-.153	-.068	—	—	—	—	.295	.150	—	—	—	—
	.578	-.065	-.082	-.134	-.025	—	—	—	—	.234	.155	—	—	—	—
	.533	-.065	-.075	-.135	-.020	—	—	—	—	.161	—	—	—	—	—
	.446	—	—	.071	—	.012	—	—	—	—	—	—	—	—	—

NACA

TABLE VI.— EXPERIMENTAL PRESSURE COEFFICIENTS
[M = 1.60]

B = 0°																										
Station		α=0.1°		α=2.5°		α=5.2°		α=8.6°		α=10.1°		Station		α=0.0°		α=2.7°		α=5.2°		α=8.6°		α=10.1°				
x/c _r	y/w ₂	P _u	P _t	x/c _r	y/w ₂	P _u	P _t																			
0.25	1	-	0.525	-	0.686	-	0.646	-	0.744	-	0.747	-	-	-	-	-	-	-	-	-	-	-	-	-		
	.933	.158	.269	.070	.384	.057	.408	-.156	.577	-.198	.608	.345	.398	.219	.461	.026	.522	-.867	.641	-.309	-.676	-	-			
	.867	.077	.112	-.014	.207	-.111	.273	-.205	.420	-.237	.469	.261	.305	.174	.400	.060	.458	-.186	.596	-.226	.619	-	-			
	.800	.042	.067	-.049	.158	-.123	.204	-.212	.367	-.246	.416	.203	.243	.126	.388	.036	.384	-.159	.478	-.203	.545	-	-			
	.733	.030	.038	-.056	.124	-.146	.183	-.234	.325	-.260	.371	.199	.185	.087	.266	.001	.321	-.188	.412	-.183	.461	-	-			
	.667	-	-	-.019	.102	-	.154	-	.294	-	.338	.197	.154	.054	.232	-.024	.227	-.119	.390	-.158	.449	-	-			
	.533	.009	.014	-.092	.087	-.137	.130	-.212	.268	-.239	.300	.077	.105	.016	.275	-.043	.227	-.135	.315	-.140	.369	-	-			
	.400	0	.013	-.053	.074	-.120	.115	-.182	.289	-.207	.266	.053	.071	-.004	.133	-.068	.181	-.136	.263	-.138	.331	-	-			
	.267	.009	.007	-.039	.066	-.097	.100	-.143	.213	-.158	.249	.040	.046	-.010	.102	-.069	.149	-.127	.208	-.128	.296	-	-			
0.50	0	.011	.011	-.038	.066	-.101	.093	-.137	.209	-.152	.240	.030	.036	-.017	.087	-.071	.129	-.131	.206	-.129	.271	-	-			
	1	-	0.646	-	0.717	-	0.599	-	0.731	-	0.710	-	-	-	-	-	-	-	-	-	-	-	-	-		
	.967	.161	.198	.047	.323	-.099	.361	-.218	.569	-.281	.601	.308	.368	.160	.477	-.127	.589	-.333	.646	-.361	.679	-	-			
	.933	.052	.091	-.053	.200	-.173	.266	-.231	.454	-.298	.492	.222	.296	.110	.592	-.063	.440	-.263	.561	-.290	.600	-	-			
	.900	-	0.045	-	0.147	-	0.214	-	0.305	-	0.296	.132	-	0.229	-	0.325	-.036	.371	-.247	.502	-.279	.545	-	-		
	.867	.013	.024	-.068	.126	-.195	.184	-.264	.322	-.296	.398	.132	.173	.046	.266	-.047	.307	-.242	.441	-.272	.486	-	-			
	.800	-.017	-.005	.111	.086	-.213	.131	-.276	.296	-.308	.330	.050	.105	-.028	.179	-.113	.220	-.260	.354	-.283	.396	-	-			
	.733	-.036	-.033	.126	.048	-.214	.087	-.278	.244	-.306	.273	.013	.035	-.064	.103	-.143	.140	-.273	.276	-.288	.315	-	-			
	.667	-.064	-.054	-.159	.019	-.236	.057	-.296	.268	-.326	.234	.021	.011	-.091	.053	-.163	.096	-.244	.224	-.291	.295	-	-			
	.600	-	-.066	-	-.004	-	.042	-	.201	-	.292	.052	.044	-.044	.116	.016	.173	.067	.233	.186	.260	.315	-	-		
	.533	-.077	-.069	-.137	-.008	-.199	.039	-.233	.163	-.298	.193	.071	.068	-.129	.007	.185	.042	.245	.159	.253	.194	-	-			
	.467	-.077	-.069	-.131	-.008	-.193	.088	-.202	.159	-.289	.186	.078	.067	-.134	.013	.184	.047	.241	.149	.249	.198	-	-			
	.400	-.077	-.068	-.127	-.009	-.189	.083	-.239	.155	-.279	.184	.079	.071	-.131	.011	.180	.040	.241	.146	.249	.189	-	-			
0.75	.267	-.069	-.113	-.002	-.172	-.026	-.206	-	.218	-	.206	.064	.057	-.097	.113	-.002	.157	.049	.220	.136	.219	.181	-	-		
	.133	-.058	-.058	-.101	0	-.151	.031	-.191	.149	-.193	.182	.047	.042	-.095	.007	.135	.059	.192	.144	.191	.187	-	-			
	0	-.050	-.050	-.001	-.029	-.137	-.029	-.137	-.137	-.168	-.040	-.043	-.086	-.002	-.129	-.052	-.189	-.134	-.184	-.180	-.180	-	-			
	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	.976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	.933	-.033	.067	-.082	.180	-.190	.245	-.270	.394	-.333	.449	.166	.203	.048	.304	-.168	.353	-.334	.460	-.353	.512	-	-			
	.900	0	.030	.106	.119	-.219	.207	.314	.317	.352	.385	.090	.138	-.004	.237	-.177	.266	-.384	.390	-.348	.442	-	-			
	.918	-.024	-.010	-.127	.086	-.223	.146	-.289	.263	-.336	.338	.042	.094	-.047	.186	-.193	.234	-.333	.333	-.388	.442	-	-			
	.889	-.043	.032	-.141	.059	-.234	.119	-.304	.251	-.341	.307	.018	.047	-.064	.129	-.185	.177	-.324	.275	-.347	.330	-	-			
	.867	-	-.053	-	.031	-	.091	-	.264	-	.273	-	-.018	-	.089	-	.139	-	.231	-	.288	-	-			
	.845	-.071	-.063	-.163	.016	-.247	.078	-.309	.198	-.345	.358	-.038	-.019	.110	.053	-.180	.106	-.333	.203	-.357	.298	-	-			
	.800	-.090	-.075	-.176	.001	-.265	.056	-.325	.187	-.361	.333	-.058	-.039	.133	.027	-.208	.083	-.336	.186	-.359	.242	-	-			
	.776	-.097	-.077	-.185	-.004	-.268	.049	-.332	.177	-.368	.299	-	-.064	-	.008	-	.053	-	.194	-	.247	-	-			
	.711	-.099	-	-.176	-	-.267	-	-.337	-	-.367	-	-.077	-.063	.152	-.002	.207	.056	-.338	.181	-.358	.247	-	-			
	.667	-.097	-	-.176	-	-.267	-	-.334	-	-.364	-	-.073	-.073	.157	-.008	.224	.070	-.348	.180	-.357	.236	-	-			
	.622	-.096	-.089	-.163	-.019	-.246	.036	-.318	.153	-.349	.197	-.091	-.091	-.160	-.024	.222	-.001	.330	-.151	-.353	-.204	-	-			
	.576	-.093	-.068	-.148	-.020	-.246	.040	-.296	.157	-.324	.196	-.096	-.084	.157	-.024	.213	.059	-.311	.159	-.340	.209	-	-			
	.533	-.091	-.084	-.140	-.010	-.222	.040	-.299	.154	-.329	.193	-.091	-.083	.151	-.005	.191	.058	-.269	.151	-.293	.204	-	-			
	.446	-	-.070	-	-.002	-	-.058	-	.139	-	.183	-.085	-.064	-.135	-.001	-.184	.054	-.283	.141	-.279	.190	-	-			

NACA

TABLE VI.—CONTINUED

$\beta = 5^\circ$ Right wing panel																						
Round-nose airfoil																						
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.8^\circ$		$\alpha=10.1^\circ$		
x/c_x	y/w_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	- - -	0.641	- - -	0.732	- - -	0.767	- - -	0.866	- - -	0.860	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	.933	0.202	.347	0.110	.445	-0.002	.513	-0.088	.653	-0.150	.684	-0.391	0.410	0.265	0.527	0.105	0.595	-0.172	0.723	-0.228	0.751	
	.867	.107	.157	-.004	.249	-.077	.387	-.165	.464	-.209	.507	-.304	.359	.211	.456	.097	.517	-.111	.650	-.165	.682	
	.800	.056	.096	-.028	.184	-.113	.260	-.198	.307	-.236	.439	-.236	.286	.152	.373	.063	.431	-.098	.561	-.149	.595	
	.733	.036	.057	-.045	.141	-.129	.212	-.209	.345	-.246	.387	-.181	.218	.103	.298	.084	.357	-.094	.483	-.147	.519	
	.667	- - -	0.25	- - -	0.105	- - -	0.177	- - -	0.305	- - -	0.344	-.134	.177	.062	.256	-.008	.315	-.103	.440	-.188	.478	
	.533	-.003	.005	-.076	.079	-.149	.147	-.226	.261	-.253	.300	-.076	.112	.010	.184	-.050	.243	-.128	.360	-.154	.398	
	.400	-.016	.003	-.077	.064	-.133	.126	-.200	.226	-.222	.263	-.044	.068	-.017	.132	-.068	.190	-.139	.295	-.161	.333	
	.267	-.007	-.004	-.060	.052	-.105	.109	-.159	.204	-.176	.239	-.025	.034	-.029	.093	-.066	.149	-.131	.249	-.149	.286	
	0	-.006	.005	-.053	.054	-.100	.105	-.143	.194	-.160	.226	-.023	.025	-.033	.070	-.069	.129	-.129	.221	-.143	.255	
0.50	1	- - -	.726	- - -	.788	- - -	.689	- - -	.829	- - -	.805	- - -	.333	.398	.180	.514	-.050	.566	-.259	.699	-.311	.721
	.967	.185	.233	.075	.339	-.044	.431	-.158	.596	-.234	.631	-.241	.322	.124	.417	-.008	.476	-.203	.605	-.248	.634	
	.933	.063	.112	-.022	.214	-.133	.302	-.213	.462	-.265	.505	-.251	.321	.124	.343	-.009	.402	-.200	.527	-.246	.563	
	.900	- - -	.059	- - -	.155	-.161	.245	- - -	.392	-.283	.433	-.140	.187	.049	.274	-.030	.339	-.202	.464	-.243	.496	
	.867	-.013	.034	-.079	.127	-.170	.215	-.251	.358	-.288	.396	-.050	.112	.028	.187	-.094	.298	-.224	.366	-.263	.399	
	.800	-.025	-.004	-.109	.082	-.191	.160	-.265	.289	-.300	.324	-.008	.038	-.065	.106	-.185	.168	-.236	.276	-.272	.312	
	.733	-.048	-.037	-.128	.041	-.203	.114	-.273	.232	-.304	.268	-.027	-.009	-.097	.057	-.149	.118	-.247	.220	-.281	.252	
	.667	-.079	-.062	-.154	.013	-.224	.061	-.290	.198	-.321	.230	-.071	-.044	.120	.014	-.169	.077	-.248	.174	-.283	.210	
	.600	- - -	.070	- - -	.002	- - -	.002	- - -	.176	- - -	.212	-.079	.071	.139	.016	-.188	.050	-.238	.145	-.279	.183	
	.533	-.092	-.075	-.159	.014	-.219	.051	-.287	.158	-.310	.189	-.095	.076	.148	.020	-.187	.053	-.261	.142	-.279	.175	
0.75	1	-.091	-.075	-.152	.017	-.207	.044	-.273	.146	-.298	.185	-.103	.061	.151	.024	-.187	.042	-.253	.137	-.270	.175	
	.467	-.092	-.075	-.148	.019	-.197	.039	-.260	.140	-.285	.177	-.097	.069	.138	.010	-.165	.045	-.225	.133	-.240	.166	
	.400	-.082	-.082	-.130	- - -	-.176	- - -	-.223	- - -	-.240	- - -	-.083	-.051	.111	.006	-.146	.058	-.198	.143	-.213	.173	
	.267	-.069	-.056	-.126	-.017	-.159	.042	-.199	.144	-.203	.175	-.082	-.045	.101	.001	-.136	.049	-.185	.137	-.208	.170	
	0	-.008	-.053	- - -	-.008	- - -	.039	- - -	.129	- - -	.159	-.082	-.045	.101	.001	-.136	.049	-.185	.137	-.208	.170	
	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-.268	-.119	-.098	-.098	-.269	-.324	-.264	-.243	-.384	-.384	
	.978	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	.218	.266	.104	.375	-.084	.438	-.264	.544	-.243	.584	
	.955	.072	.128	-.024	.236	-.149	.307	-.273	.454	-.314	.496	-.133	.196	.045	.293	-.103	.358	-.273	.464	-.305	.504	
	.933	.038	.069	-.048	.171	-.162	.253	-.283	.379	-.332	.420	-.078	.144	-.002	.234	-.127	.300	-.103	.403	-.143	.443	
	.912	.007	.036	-.078	.131	-.181	.208	-.286	.330	-.326	.372	-.044	.017	.117	.056	-.162	.121	-.306	.224	-.331	.271	
	.889	-.016	.008	-.098	.100	-.195	.173	-.288	.294	-.332	.335	-.050	.092	-.026	.172	-.131	.236	-.287	.336	-.316	.376	
	.867	- - -	.018	- - -	.067	- - -	.141	- - -	.261	- - -	.304	-.049	-.049	-.026	.128	-.192	-.206	-.206	-.206	-.206	-.206	
0.90	1	-.050	-.035	-.130	.048	-.216	.121	-.295	.241	-.335	.284	-.010	.012	-.085	.066	-.138	.151	-.300	.251	-.326	.289	
	.845	-.076	-.054	-.154	.024	-.230	.099	-.307	.215	-.346	.253	-.044	-.017	.117	.056	-.162	.121	-.306	.224	-.331	.271	
	.796	-.094	-.065	-.168	.010	-.238	.082	-.318	.203	-.350	.240	-.048	-.048	-.018	-.018	-.080	-.080	-.188	-.188	-.226	-.226	
	.711	-.105	- - -	-.179	- - -	-.249	- - -	-.317	- - -	-.351	- - -	-.077	-.055	-.146	.013	-.195	.076	-.311	.193	-.332	.250	
	.667	-.111	- - -	-.184	- - -	-.256	- - -	-.317	- - -	-.352	- - -	-.090	-.067	.160	0	-.211	.069	-.312	.198	-.332	.237	
	.622	-.115	-.091	-.187	-.022	-.253	.037	-.313	.163	-.346	.203	-.104	-.169	-.221	-.221	-.307	-.307	-.333	-.333	-.333	-.333	
	.578	-.117	-.096	-.184	-.034	-.244	.028	-.304	.163	-.333	.194	-.116	-.089	-.179	-.030	-.227	.044	-.302	.166	-.330	.205	
	.533	-.121	-.100	-.187	-.039	-.244	.021	-.307	.159	-.331	.185	-.116	-.100	-.174	-.029	-.216	.033	-.277	.161	-.309	.193	
	.446	- - -	-.095	- - -	-.031	- - -	.031	- - -	.144	- - -	.165	-.127	-.109	.185	.029	-.222	.026	-.297	.146	-.304	.167	

NACA

TABLE VI.— CONTINUED

$\beta = 5^\circ$													
Left wing panel													
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil	
x/c_T	$y/w/2$	P_u	P_t	P_u	P_t	P_u	P_t	P_u	P_t	P_u	P_t	P_u	P_t
0.25	1	0	0.412	0	0.494	0	0.576	0	0.618	0	0.653	0	0
	.933	.125	.202	.018	.298	-.066	.398	-.193	.508	-.217	.566	.305	.286
	.867	.059	.077	-.041	.163	-.116	.267	-.227	.388	-.247	.449	.230	.203
	.800	.038	.043	-.053	.127	-.133	.226	-.233	.346	-.260	.408	.180	.202
	.733	.032	.023	-.037	.101	-.134	.195	-.243	.308	-.268	.361	.145	.156
	.667	—	.012	—	.086	—	.174	—	.280	—	.332	.115	.133
	.533	.018	.013	-.042	.078	-.103	.195	-.193	.291	-.228	.299	.076	.092
	.400	.009	.013	-.046	.067	-.093	.137	-.162	.227	-.183	.271	.060	.067
	.267	.018	.006	-.031	.062	-.076	.126	-.130	.214	-.150	.254	.053	.047
	0	.011	.006	-.037	.058	-.079	.122	-.132	.206	-.149	.245	.033	.017
0.50	1	—	.520	—	.561	—	.595	—	.570	—	.558	—	—
	.967	.116	.129	-.014	.245	-.114	.361	-.277	.490	-.311	.531	.259	.291
	.933	.029	.037	-.094	.192	-.179	.266	-.290	.392	-.323	.442	.186	.230
	.900	—	.005	-.104	.113	-.190	.224	-.289	.349	-.321	.392	.215	.174
	.867	.004	-.008	-.109	.098	-.192	.202	-.290	.322	-.318	.369	.107	.189
	.800	.019	.019	-.113	.069	-.199	.161	-.299	.270	-.326	.313	.039	.068
	.733	.033	.040	-.111	.040	-.191	.185	-.295	.230	-.321	.274	.069	.012
	.667	.049	.052	-.117	.021	-.179	.105	-.289	.207	-.324	.291	.015	.021
	.600	—	.023	—	.012	—	.094	—	.204	—	.250	.035	.044
	.533	.057	.062	-.115	.001	-.166	.083	-.253	.178	-.297	.221	.049	.058
0.75	.467	.057	.061	-.111	.001	-.153	.087	-.209	.179	-.249	.219	.054	.057
	.400	.061	.061	-.102	-.003	-.147	.082	-.201	.168	-.229	.219	.055	.057
	.267	.056	—	-.103	—	-.138	—	-.180	—	-.198	—	.046	.045
	.133	.049	.054	-.096	-.004	-.133	.061	-.177	.145	-.187	.197	.037	.042
	0	—	.056	—	—	-.007	—	.055	—	.138	—	.184	-.040
	1	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—
	.955	.011	.010	-.121	.118	-.203	.227	-.315	.355	-.348	.405	.153	.013
	.933	.023	.010	-.146	.066	-.223	.193	-.344	.311	-.363	.367	.034	.114
	.912	.040	.052	-.157	.044	-.227	.139	-.334	.297	-.397	.311	.008	.016
0.75	.869	.056	.067	-.167	.022	-.236	.117	-.336	.231	-.399	.285	.031	.027
	.867	—	.084	—	.001	—	.094	—	.207	—	.297	—	.056
	.845	.081	.093	-.171	-.007	-.252	.084	-.337	.193	-.362	.243	.070	.080
	.800	.096	.100	-.186	-.015	-.267	.069	-.348	.173	-.369	.221	.095	.105
	.756	.101	.093	-.184	-.013	-.266	.063	-.348	.168	-.367	.216	—	.110
	.711	.097	—	-.176	—	—	.256	—	.338	—	.361	—	.099
	.687	.091	—	-.163	—	—	.243	—	.332	—	.356	—	.091
	.662	.083	.087	-.156	-.023	-.228	.049	-.319	.154	-.346	.194	.088	—
	.578	.073	.080	-.141	-.020	-.211	.058	-.304	.152	-.334	.194	.080	.082
	.533	.073	.075	-.134	-.017	-.204	.052	-.305	.150	-.339	.192	.066	.075
0.75	.446	—	.082	—	—	-.009	—	.055	—	.148	—	.184	.064
	—	—	—	—	—	—	—	—	—	—	—	—	—



TABLE VI.— CONTINUED

$\beta = 90^\circ$													
Right wing panel													
Station		$\alpha = -0.1^\circ$		$\alpha = 2.5^\circ$		$\alpha = 5.2^\circ$		$\alpha = 8.6^\circ$		$\alpha = 10.1^\circ$		Sharp-nose airfoil	
x/c_x	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	- - -	0.776	- - -	0.817	- - -	- - -	-0.047	0.950	- - -	- - -	0.418	0.448
	.933	0.293	.422	0.143	.496	- - -	- - -	-1.31	.708	- - -	- - -	.330	.392
	.867	.141	.205	.051	.287	- - -	- - -	-1.74	.414	- - -	- - -	.293	.315
	.800	.079	.133	-.004	.214	- - -	- - -	-1.85	.356	- - -	- - -	.193	.239
	.733	.055	.087	-.024	.163	- - -	- - -	-2.29	.263	- - -	- - -	.143	.193
	.667	- - -	.045	- - -	.119	- - -	- - -	-2.16	.223	- - -	- - -	.073	.118
	.533	-.009	.012	-.061	.084	- - -	- - -	-1.72	.196	- - -	- - -	.094	.067
	.400	-.025	.001	-.087	.066	- - -	- - -	-1.50	.181	- - -	- - -	.011	.026
0.50	0	-.018	-.006	-.068	.050	- - -	- - -	- - -	- - -	- - -	- - -	-.005	.011
	1	- - -	.867	- - -	.905	- - -	- - -	-1.00	.639	- - -	- - -	.360	.441
	.967	-.228	.308	.120	.398	- - -	- - -	-1.78	.498	- - -	- - -	.262	.344
	.933	.104	.169	0	.262	- - -	- - -	- - -	- - -	- - -	- - -	.263	.378
	.900	- - -	.103	- - -	.190	- - -	- - -	- - -	-4.16	- - -	- - -	.161	.215
	.867	.038	.073	-.052	.159	- - -	- - -	-2.86	.379	- - -	- - -	.064	.136
	.800	.005	.028	-.086	.107	- - -	- - -	-2.42	.306	- - -	- - -	.017	.059
	.733	-.036	-.014	-.111	.060	- - -	- - -	-2.55	.244	- - -	- - -	.021	.003
	.667	-.073	-.047	-.141	.023	- - -	- - -	-2.74	.200	- - -	- - -	.037	.038
	.600	- - -	-.066	- - -	.003	- - -	- - -	- - -	.177	- - -	- - -	.063	.071
	.533	-.106	-.079	-.168	-.013	- - -	- - -	-2.86	.150	- - -	- - -	.101	.081
	.467	-.109	-.083	-.169	-.022	- - -	- - -	-2.87	.139	- - -	- - -	.112	.095
	.400	-.112	-.080	-.165	-.029	- - -	- - -	-2.77	.131	- - -	- - -	.106	.089
	.337	-.102	-.149	- - -	-.243	- - -	- - -	- - -	- - -	- - -	- - -	.063	.063
	0	-.087	-.066	-.130	-.016	- - -	- - -	-2.10	.127	- - -	- - -	.072	.057
0.75	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	.288	.122
	.978	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	.235	.298
	.955	.103	.177	-.003	.272	- - -	- - -	-2.39	.500	- - -	- - -	.143	.221
	.933	.062	.108	-.038	.199	- - -	- - -	-2.36	.416	- - -	- - -	.086	.164
	.912	.024	.070	-.066	.152	- - -	- - -	-2.49	.364	- - -	- - -	.023	.107
	.889	-.003	.034	-.088	.116	- - -	- - -	-2.53	.321	- - -	- - -	.012	.015
	.867	- - -	.002	- - -	.080	- - -	- - -	- - -	.275	- - -	- - -	.050	.017
	.845	-.046	-.022	-.124	.054	- - -	- - -	-2.69	.259	- - -	- - -	.020	.012
	.800	-.079	-.046	-.151	.024	- - -	- - -	-2.61	.223	- - -	- - -	.089	.132
	.756	-.101	-.064	-.162	.011	- - -	- - -	-2.94	.201	- - -	- - -	.063	.161
	.711	-.115	- - -	-.179	- - -	- - -	- - -	-2.98	- - -	- - -	- - -	.106	.077
	.667	-.124	- - -	-.186	- - -	- - -	- - -	-3.00	- - -	- - -	- - -	.119	.177
	.622	-.132	-.103	-.193	-.036	- - -	- - -	-3.02	.138	- - -	- - -	.128	.102
	.578	-.137	-.110	-.193	-.045	- - -	- - -	-3.04	.126	- - -	- - -	.123	.111
	.533	-.144	-.117	-.201	-.049	- - -	- - -	- - -	.119	- - -	- - -	.144	.201
	.446	- - -	-.112	- - -	-.050	- - -	- - -	- - -	- - -	- - -	- - -	.207	.065

NACA

TABLE VI.— CONCLUDED

$\beta = 9^{\circ}$													
Left wing panel													
		Round-nose airfoil						Sharp-nose airfoil					
Station	x/c_T	y/w_2	$\alpha=0.1^{\circ}$		$\alpha=2.5^{\circ}$		$\alpha=5.2^{\circ}$		$\alpha=8.6^{\circ}$		$\alpha=10.1^{\circ}$		
			P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	0.375	—	0.459	—	—	—	0.261	—	—	—	
	.933	.0130	.193	0.017	.263	—	—	—	—	—	0.335	0.336	
	.867	.077	.080	—0.30	.170	—	—	—	—	—	.243	.263	
	.800	.062	.056	—0.31	.141	—	—	—	—	—	.140	.331	
	.733	.062	.043	—0.022	.119	—	—	—	—	—	.196	.214	
	.667	—	—	.036	.106	—	—	—	—	—	.165	.165	
	.533	.040	.033	—0.020	.093	—	—	—	—	—	.135	.150	
	.400	.029	.027	—0.024	.080	—	—	—	—	—	.098	.108	
	.267	.034	.019	—0.014	.071	—	—	—	—	—	.071	.073	
	0	.018	.009	—0.032	.060	—	—	—	—	—	.034	.020	
0.50	1	—	—	—	—	—	—	—	—	—	—	—	
	.967	.090	.073	—0.058	.199	—	—	—	—	—	.244	.259	
	.933	.024	.005	—0.115	.126	—	—	—	—	—	.171	.203	
	.900	—	—	—0.111	.108	—	—	—	—	—	.191	.133	
	.867	.006	.013	—0.068	.087	—	—	—	—	—	.084	.093	
	.800	.012	.023	—0.049	.062	—	—	—	—	—	.025	.040	
	.733	.019	.032	—0.066	.039	—	—	—	—	—	.003	.010	
	.667	.027	.038	—0.093	.026	—	—	—	—	—	.015	.032	
	.600	—	.039	—	.023	—	—	—	—	—	.035	.049	
	.533	.029	.039	—0.065	.019	—	—	—	—	—	.043	.054	
	.467	.024	.033	—0.078	.019	—	—	—	—	—	.040	.049	
	.400	.025	.029	—0.089	.017	—	—	—	—	—	.034	.039	
	.267	.021	—	—0.069	—	—	—	—	—	—	.023	.025	
	.133	.023	—0.027	—0.070	.003	—	—	—	—	—	.021	.019	
0.75	1	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	.123	—	
	.955	—0.023	—0.048	—0.151	.070	—	—	—	—	—	.068	.054	
	.933	—0.050	—0.058	—0.172	.045	—	—	—	—	—	.012	—0.008	
	.912	—0.066	—0.090	—0.182	.005	—	—	—	—	—	.395	.266	
	.889	—0.078	—0.098	—0.181	—0.031	—	—	—	—	—	.048	—0.044	
	.867	—	—	—0.111	—0.027	—	—	—	—	—	.071	—0.083	
	.845	—0.094	—0.114	—0.183	—0.032	—	—	—	—	—	.104	—0.127	
	.800	—0.101	—0.113	—0.184	—0.036	—	—	—	—	—	.119	—0.135	
	.756	—0.098	—0.107	—0.177	—0.029	—	—	—	—	—	.144	—0.146	
	.711	—0.093	—	—	—0.169	—	—	—	—	—	.115	—0.125	
	.667	—0.085	—	—	—0.156	—	—	—	—	—	.106	—0.117	
	.622	—0.077	—0.086	—0.144	—0.023	—	—	—	—	—	.098	—0.137	
	.578	—0.066	—0.078	—0.132	—0.016	—	—	—	—	—	.089	—0.095	
	.533	—0.063	—0.071	—0.128	—0.010	—	—	—	—	—	.074	—0.085	
	.446	—	—	—0.052	—	—	—	—	—	—	.065	—0.057	

NACA

TABLE VII.— EXPERIMENTAL PRESSURE COEFFICIENTS
[M = 1.70]

$\beta = 0^\circ$																						
Station		Round-nose airfoil					Sharp-nose airfoil															
		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$	$\alpha=2.7^\circ$	$\alpha=5.2^\circ$	$\alpha=8.6^\circ$	$\alpha=10.1^\circ$	$\alpha=0.0^\circ$	$\alpha=2.7^\circ$	$\alpha=5.2^\circ$	$\alpha=8.6^\circ$	$\alpha=10.1^\circ$	
x/c_T	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	—	0.571	—	0.623	—	—	0.689	—	—	0.799	—	—	0.767	—	—	—	—	—	—	—
	.933	0.210	.277	0.089	.329	0.015	.425	-0.100	.599	-0.121	.590	0.342	0.342	0.230	0.450	0.078	0.527	-0.188	0.630	-0.232	0.660	
	.867	.112	.144	.014	.207	-0.062	.291	-0.156	.432	-0.165	.471	.270	.294	.180	.375	.090	.451	-0.114	.570	-0.166	.596	
	.800	.061	.045	-0.021	.159	-0.091	.239	-0.170	.378	-0.187	.418	.207	.207	.128	.317	.049	.387	-0.095	.503	-0.148	.534	
	.733	.050	.053	-0.038	.103	-0.104	.188	-0.184	.321	-0.204	.362	.160	.194	.090	.266	.018	.334	-0.084	.450	-0.143	.481	
	.667	—	—	0.040	—	—	0.091	—	—	0.171	—	—	0.300	—	—	0.338	—	—	0.081	0.409	-0.133	0.442
	.533	.024	.026	-0.052	.076	-0.108	.148	-0.185	.263	-0.212	.297	.090	.110	.031	.177	-0.026	.238	-0.093	.344	-0.121	.377	
	.400	.015	.025	-0.049	.067	-0.093	.132	-0.156	.235	-0.188	.267	.064	.073	.011	.134	-0.041	.195	-0.101	.290	-0.126	.323	
	.267	.014	.022	-0.041	.056	-0.080	.119	-0.132	.217	-0.159	.246	.056	.056	.007	.107	-0.037	.168	-0.068	.259	-0.108	.293	
	0	.020	.023	-0.037	.052	-0.079	.114	-0.117	.208	-0.134	.236	.038	.048	-0.005	.098	-0.045	.152	-0.097	.244	-0.115	.276	
0.50	1	—	—	.676	—	.599	—	—	.651	—	—	.682	—	—	.671	—	—	—	—	—	—	—
	.967	.279	.313	.050	.287	-0.041	.400	-0.185	.547	-0.210	.579	.306	.344	.170	.454	-0.071	.533	-0.258	.550	-0.400	.655	
	.933	.179	.214	-.051	.178	-.115	.288	-.225	.425	-.244	.467	.220	.276	.126	.370	-.011	.444	-0.196	.558	-0.251	.568	
	.900	—	—	.065	—	—	.136	—	—	.226	—	—	.377	—	—	.418	—	—	.184	.490	-0.230	.508
	.867	.030	.040	-0.068	.108	-0.145	.198	-0.227	.343	-0.238	.383	.172	.212	.079	.296	-0.001	.367	-0.182	.439	-0.225	.457	
	.800	-.004	.008	-0.096	.073	-0.162	.153	-0.240	.284	-0.253	.321	.063	.100	-.009	.171	-0.010	.234	-0.196	.337	-0.239	.374	
	.733	-.021	-.021	-0.104	.039	-0.167	.111	-0.242	.234	-0.257	.267	.020	.042	-0.046	.105	-0.110	.167	-0.202	.286	-0.244	.305	
	.667	-.047	-.039	-.131	.014	-.191	.085	-.266	.200	-.277	.236	-.009	-.001	-.069	.061	-.128	.122	-.205	.233	-.255	.253	
	.600	-.050	-.043	-.088	.004	-.149	.070	-.222	.183	-.237	.214	-.036	-.031	-.091	.028	-.144	.069	-.199	.194	-.244	.219	
	.533	-.054	-.045	-.116	.007	-.164	.069	-.237	.174	-.266	.205	-.051	-.050	-.101	.009	-.149	.066	-.204	.167	-.234	.195	
0.75	1	—	—	.978	—	.978	—	—	.978	—	—	.978	—	—	.978	—	—	—	—	—	—	—
	.978	-.063	-.089	-.047	.164	-.148	.260	-.242	.395	-.260	.443	.175	.203	.055	.292	-.114	.377	-.266	.474	-.295	.504	
	.955	-.026	.055	-.081	.138	-.165	.209	-.263	.314	-.274	.391	.115	.138	.010	.223	-.130	.397	-.256	.403	-.286	.435	
	.933	-.001	—	-.102	—	—	.179	—	—	.266	—	—	.278	—	—	.068	.090	-.017	.170	-.129	.244	—
	.889	-.018	-.009	-.115	.052	-.188	.136	—	.267	.256	.261	.302	.049	.049	-.053	.120	-.148	.190	-.265	.293	-.293	.326
	.867	—	—	.034	—	—	.027	—	—	.106	—	—	.227	—	—	.015	—	—	.083	—	—	.258
	.845	-.053	-.046	-.139	.013	-.208	.091	-.275	.212	-.290	.255	-.024	-.012	-.097	.056	-.152	.186	-.276	.229	-.305	.261	
	.800	-.074	-.064	-.158	-.007	-.222	.065	-.287	.189	-.299	.230	-.051	-.041	-.117	.023	-.173	.092	-.279	.199	-.309	.233	
	.756	-.086	-.070	-.169	.015	-.227	.061	-.293	.185	-.305	.217	—	—	-.068	—	—	.063	—	—	.169	—	.204
	.711	-.093	-.061	-.176	-.028	-.233	.040	-.298	.169	-.309	.205	-.081	-.070	-.142	-.006	-.197	.060	-.280	.171	-.311	.218	
	.667	-.091	—	—	.162	—	—	.229	—	—	.296	—	—	.310	—	—	.086	-.077	-.142	-.008	-.199	.059
	.622	-.096	-.082	-.166	-.032	-.223	.037	—	.288	.153	-.304	.185	-.092	—	—	.144	—	—	.199	—	—	.271
	.578	-.084	-.082	-.141	-.030	-.203	.037	—	.148	—	.176	-.092	—	—	.148	—	—	.010	-.200	.092	-.252	.163
	.533	-.090	-.077	-.151	-.034	-.203	.038	-.265	.152	-.289	.151	-.089	-.076	-.142	-.011	-.186	.071	-.235	.160	-.271	.186	
	.446	—	—	.071	—	—	.016	—	—	.044	—	—	.149	—	—	.166	—	—	.088	-.067	-.138	-.009

NACA

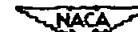
TABLE VII.—CONTINUED

$\beta = 0^\circ$																			
Right wing panel																			
Station		$\alpha=0.1^\circ$			$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		Sharp-nose airfoil						
x/a_T	y/w_2	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l		
0.25	1	—	—	0.697	—	—	0.765	—	—	0.869	—	—	0.879	—	—	—	—	—	
	.933	0.253	.340	0.164	.421	0.074	0.505	—0.058	.614	-0.079	.649	—	—	0.398	0.413	0.271	0.518	0.149	0.608
	.867	.144	.186	.056	.266	-.083	.350	-.117	.463	-.138	.501	—	—	—	—	—	—	—	—
	.800	.081	.127	-.001	.201	-.073	.286	-.154	.401	-.164	.440	—	—	—	—	—	—	—	—
	.733	.065	.074	-.010	.133	-.082	.284	-.166	.333	-.184	.374	—	—	—	—	—	—	—	—
	.667	—	—	.053	—	—	.128	—	.200	—	.307	—	.344	—	—	—	—	—	—
	.533	.018	.026	-.051	.098	-.115	.166	-.190	.263	-.214	.298	—	—	—	—	—	—	—	—
	.400	.004	.021	-.053	.079	-.105	.145	-.171	.235	-.197	.264	—	—	—	—	—	—	—	—
	.267	.004	.017	-.045	.070	-.089	.129	-.144	.212	-.167	.241	—	—	—	—	—	—	—	—
	0	.012	.019	-.034	.068	-.073	.121	-.120	.201	-.138	.225	—	—	—	—	—	—	—	—
0.50	1	—	—	.697	—	—	.732	—	—	.796	—	—	.777	—	—	—	—	—	—
	.967	.228	.269	.108	.364	.027	.459	-.105	.508	-.162	.634	—	—	—	—	—	—	—	—
	.933	.107	.149	.001	.238	-.073	.331	-.175	.469	-.205	.509	—	—	—	—	—	—	—	—
	.900	—	—	.100	—	—	.182	—	.264	—	.358	—	.439	—	—	—	—	—	—
	.867	.050	.069	-.035	.150	-.120	.232	—0.206	.361	-.220	.399	—	—	—	—	—	—	—	—
	.800	.007	.028	-.068	.104	-.142	.180	—0.221	.297	-.238	.330	—	—	—	—	—	—	—	—
	.733	.017	.010	-.088	.061	-.157	.130	—0.230	.298	-.248	.270	—	—	—	—	—	—	—	—
	.667	.053	.037	-.117	.032	-.182	.096	—0.249	.201	-.269	.299	—	—	—	—	—	—	—	—
	.600	.058	.050	-.108	.017	-.171	.083	—0.236	.178	-.236	.204	—	—	—	—	—	—	—	—
	.533	.072	.057	-.126	.009	-.186	.067	—0.249	.164	-.266	.194	—	—	—	—	—	—	—	—
	.467	.073	.060	-.125	.005	-.181	.062	—0.245	.155	-.267	.186	—	—	—	—	—	—	—	—
	.400	.072	.060	-.119	.002	-.170	.058	—0.230	.146	-.252	.174	—	—	—	—	—	—	—	—
	.267	.064	.053	-.106	.005	-.145	.051	—0.200	.140	-.228	.166	—	—	—	—	—	—	—	—
	.133	.053	.043	-.091	.005	-.133	.056	—0.176	.133	-.180	.162	—	—	—	—	—	—	—	—
	0	.046	.039	-.084	.007	-.123	.057	—0.167	.128	-.180	.151	—	—	—	—	—	—	—	—
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	.955	.094	.139	-.009	.227	-.113	.318	—0.228	.449	-.231	.481	—	—	—	—	—	—	—	—
	.933	.056	.086	-.044	.166	-.129	.250	—0.239	.383	-.250	.412	—	—	—	—	—	—	—	—
	.912	.081	—	—	.071	—	.150	—	.246	—	.253	—	.095	—	.131	—	.014	—	.223
	.889	.001	.060	-.086	.094	-.163	.175	—0.247	.290	-.260	.320	—	—	—	—	—	—	—	—
	.867	—	—	.007	—	—	.064	—	.139	—	.257	—	.286	—	.048	—	.048	—	.126
	.845	.036	.024	-.116	.046	-.187	.117	—0.258	.235	-.269	.264	—	—	—	—	—	—	—	—
	.800	.084	.046	-.136	.025	-.203	.090	—0.270	.207	-.284	.234	—	—	—	—	—	—	—	—
	.756	.085	.058	-.151	.011	-.214	.078	—0.279	.193	-.289	.217	—	—	—	—	—	—	—	—
	.711	.093	.077	-.161	.014	-.220	.050	—0.284	.168	-.296	.199	—	—	—	—	—	—	—	—
	.667	.196	—	—	.149	—	—	.221	—	.284	—	.299	—	.083	—	.068	—	.141	—
	.622	.109	.090	-.167	.025	-.224	.041	—0.282	.144	-.293	.174	—	—	—	—	—	—	—	—
	.578	.103	.098	-.128	.033	-.216	.034	—	.134	—	.163	—	.098	—	.081	—	.154	—	.201
	.533	.114	.093	-.168	.028	-.222	.039	—0.275	.141	-.282	.165	—	—	—	—	—	—	—	—
	.446	—	—	.089	—	—	.028	—	—	.132	—	.154	—	.106	—	.087	—	.159	—

NACA

TABLE VII.—CONTINUED

$\beta = 5^\circ$													
Left wing panel													
Station		Round-nose airfoil				Sharp-nose airfoil							
x/c_x	$\frac{L}{w/2}$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	- - -	0.449	- - -	0.535	- - -	0.600	- - -	0.645	- - -	0.692	- - -	- - -
	.933	.161	.209	.072	.294	-.011	.392	-.133	.205	-.169	.548	.300	.270
	.867	.084	.093	-.001	.185	-.079	.277	-.175	.394	-.197	.446	.237	.237
	.800	.050	.061	-.033	.156	-.105	.236	-.191	.352	-.213	.405	.185	.197
	.733	.051	.031	-.029	.102	-.107	.195	-.202	.306	-.226	.356	.147	.163
	.667	- - -	.028	- - -	.097	- - -	.186	- - -	.288	- - -	.335	.128	.136
	.533	.036	.028	-.026	.088	-.078	.165	-.163	.257	-.198	.301	.096	.100
	.400	.027	.025	-.026	.079	-.070	.148	-.137	.234	-.164	.275	.074	.070
	.267	.026	.021	-.084	.072	-.062	.138	-.119	.219	-.180	.259	.073	.055
0	.024	.015	-.023	.067	-.062	.127	-.114	.208	-.129	.247	.045	.044	-.007
0.50	1	- - -	.142	- - -	.317	- - -	.525	- - -	.564	- - -	.537	- - -	- - -
	.967	.131	.131	.026	.249	-.094	.356	-.228	.481	-.235	.537	.246	.267
	.933	.040	.050	-.056	.158	-.045	.260	-.252	.384	-.275	.441	.187	.208
	.900	- - -	.014	- - -	.115	- - -	.219	- - -	.349	- - -	.393	.144	.160
	.867	.012	.003	-.080	.093	-.158	.196	-.241	.319	-.267	.362	.115	.120
	.800	.009	.019	-.095	.070	-.170	.157	-.252	.266	-.277	.308	.093	.066
	.733	.021	.034	-.097	.041	-.172	.119	-.252	.223	-.278	.265	.018	.017
	.667	.039	.045	-.106	.023	-.187	.099	-.256	.196	-.265	.240	.007	-.016
	.600	-.036	-.046	-.100	.017	-.154	.088	-.220	.188	-.267	.224	.027	-.039
	.533	-.039	-.046	-.098	.014	-.142	.085	-.224	.177	-.264	.218	.037	-.050
	.467	-.038	-.041	-.092	.011	-.132	.077	-.192	.177	-.240	.212	.043	-.050
	.400	-.036	-.036	-.088	.015	-.123	.076	-.175	.167	-.209	.206	.036	-.044
	.267	-.031	-.033	-.078	.012	-.111	.074	-.199	.162	-.180	.195	.025	-.026
	.133	-.028	-.032	-.078	.017	-.104	.118	-.144	.154	-.171	.187	.016	-.018
0	-.033	.016	-.074	.012	-.106	.070	-.149	.150	-.171	.179	-.017	-.019	-.064
0.75	1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	.174	-.019
	.978	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	.174	-.019
	.955	.019	.017	-.074	.127	-.169	.222	-.284	.337	-.297	.388	.136	.125
	.933	-.009	-.004	-.102	.090	-.183	.185	-.298	.309	-.357	.377	.071	.078
	.912	-.030	- - -	.119	- - -	-.194	- - -	-.299	- - -	.310	- - -	.038	.037
	.889	-.045	-.059	-.130	.032	-.204	.118	-.299	.221	-.312	.273	-.005	-.009
	.867	-.077	- - -	.010	- - -	-.092	- - -	-.197	- - -	.231	- - -	.026	-.032
	.845	-.059	-.065	-.149	-.001	-.221	.061	-.306	.183	-.317	.236	-.006	-.048
	.800	-.089	-.092	-.161	-.015	-.232	.063	-.314	.162	-.325	.217	-.060	-.072
	.756	-.092	-.089	-.163	-.018	-.235	.062	-.317	.176	-.326	.211	-.088	-.088
	.711	-.093	-.095	-.161	-.031	-.231	.039	-.314	.152	-.325	.203	-.081	-.088
	.667	-.076	- - -	-.146	-.015	-.216	- - -	-.303	- - -	.319	- - -	-.074	-.075
	.622	-.082	-.085	-.147	-.027	-.204	.053	-.294	.139	-.310	.186	-.077	-.142
	.578	- - -	-.080	-.129	-.023	-.183	.028	- - -	.133	- - -	.181	-.074	-.075
	.533	-.071	-.074	-.131	-.021	-.179	.061	-.280	.137	-.297	.183	-.064	-.064
	.446	-.083	-.064	- - -	-.008	- - -	-.059	- - -	.133	- - -	.176	-.054	-.054



CONFIDENTIAL

TABLE VII.— CONTINUED

$\beta = 9^\circ$																					
Right wing panel																					
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.8^\circ$		$\alpha=10.1^\circ$	
x/c_x	$y/w/2$	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l
0.25	1	- - -	0.770	- - -	0.879	- - -	- - -	- - -	0.976	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	.933	.0273	.373	.0215	.492	- - -	- - -	-.010	.687	- - -	- - -	- - -	- - -	0.490	0.471	0.318	0.595	- - -	- - -	- - -	- - -
	.867	.162	.214	.094	.317	- - -	- - -	-.076	.507	- - -	- - -	- - -	- - -	.395	.402	.258	.497	- - -	- - -	- - -	- - -
	.800	.100	.147	.025	.244	- - -	- - -	-.127	.433	- - -	- - -	- - -	- - -	.278	.335	.194	.419	- - -	- - -	- - -	- - -
	.733	.072	.085	.015	.166	- - -	- - -	-.138	.375	- - -	- - -	- - -	- - -	.213	.271	.142	.348	- - -	- - -	- - -	- - -
	.667	- - -	.055	- - -	.144	- - -	- - -	- - -	.323	- - -	- - -	- - -	- - -	.170	.220	.103	.297	- - -	- - -	- - -	- - -
	.533	-.001	.014	.050	.104	- - -	- - -	-.178	.270	- - -	- - -	- - -	- - -	.106	.146	.046	.218	- - -	- - -	- - -	- - -
	.400	-.018	.004	-.065	.082	- - -	- - -	-.190	.234	- - -	- - -	- - -	- - -	.062	.090	.009	.154	- - -	- - -	.118	.295
	.267	-.017	-.003	-.058	.069	- - -	- - -	-.162	.207	- - -	- - -	- - -	- - -	.043	.054	-.005	.112	- - -	- - -	.111	.243
0	0	-.013	-.003	-.042	.064	- - -	- - -	-.189	.188	- - -	- - -	- - -	- - -	.081	.041	-.020	.094	- - -	- - -	.119	.211
0.50	1	- - -	.762	- - -	.846	- - -	- - -	- - -	.896	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	.967	.238	.290	.158	.417	- - -	- - -	-.047	.646	- - -	- - -	- - -	- - -	.391	.464	.245	.588	- - -	- - -	.125	.784
	.933	.108	.159	.036	.279	- - -	- - -	-.136	.499	- - -	- - -	- - -	- - -	.290	.378	.189	.477	- - -	- - -	.088	.671
	.900	- - -	.113	- - -	.215	- - -	- - -	- - -	.423	- - -	- - -	- - -	- - -	.227	.292	.133	.382	- - -	- - -	.095	.569
	.867	.054	.078	.018	.177	- - -	- - -	-.179	.383	- - -	- - -	- - -	- - -	.185	.232	.099	.317	- - -	- - -	.106	.502
	.800	.008	.033	-.053	.126	- - -	- - -	-.199	.313	- - -	- - -	- - -	- - -	.099	.155	.027	.231	- - -	- - -	.142	.400
	.733	-.016	-.007	-.078	.078	- - -	- - -	-.211	.249	- - -	- - -	- - -	- - -	.044	.083	-.019	.150	- - -	- - -	.168	.309
	.667	-.062	-.040	-.110	.042	- - -	- - -	-.233	.206	- - -	- - -	- - -	- - -	.006	.029	-.053	.093	- - -	- - -	.191	.241
	.600	-.039	-.056	-.117	.023	- - -	- - -	-.236	.180	- - -	- - -	- - -	- - -	.069	.011	-.083	.051	- - -	- - -	.206	.183
0.75	.533	-.084	-.062	-.135	.007	- - -	- - -	-.247	.157	- - -	- - -	- - -	- - -	.022	.041	-.103	.021	- - -	- - -	.223	.143
	.467	-.099	-.076	-.141	-.002	- - -	- - -	-.252	.148	- - -	- - -	- - -	- - -	.070	.056	-.128	.003	- - -	- - -	.237	.123
	.400	-.095	-.080	-.139	-.003	- - -	- - -	-.220	.139	- - -	- - -	- - -	- - -	.080	.066	-.129	.008	- - -	- - -	.245	.111
	.367	-.087	-.067	-.120	-.002	- - -	- - -	-.190	.126	- - -	- - -	- - -	- - -	.078	-.059	-.122	.007	- - -	- - -	.230	.108
	.333	-.071	-.060	-.104	.002	- - -	- - -	-.172	.120	- - -	- - -	- - -	- - -	.059	-.039	-.100	.016	- - -	- - -	.208	.112
	0	-.038	-.025	-.092	.006	- - -	- - -	-.172	.120	- - -	- - -	- - -	- - -	.047	-.029	-.065	.020	- - -	- - -	.195	.104

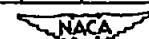


TABLE VII.— CONCLUDED

$\beta = 9^\circ$																						
Left wing panel																						
		Round-nose airfoil					Sharp-nose airfoil															
Station		$\alpha=0.1^\circ$		$\alpha=2.5^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		$\alpha=0.0^\circ$		$\alpha=2.7^\circ$		$\alpha=5.2^\circ$		$\alpha=8.6^\circ$		$\alpha=10.1^\circ$		
x/c_T	y/c_T	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	P_u	P_l	
0.25	1	—	—	0.375	—	0.465	—	—	—	0.550	—	—	—	—	—	—	—	—	—	—	—	
	.933	0.140	.168	0.051	.260	—	—	—	—	0.173	.460	—	—	0.269	0.228	0.128	0.294	—	—	—	—	
	.867	.080	.077	—	—	0.009	.120	—	—	—	—	—	—	.219	.210	.107	.256	—	—	—	—	
	.800	.058	.056	—	—	0.027	.140	—	—	—	—	—	—	.174	.178	.076	.216	—	—	—	—	
	.733	.062	.033	—	—	0.017	.104	—	—	—	—	—	—	.146	.151	.051	.188	—	—	—	—	
	.667	—	—	—	—	0.012	—	—	—	—	—	—	—	.126	.128	.038	.160	—	—	—	—	
	.533	.049	.037	—	—	0.011	.095	—	—	—	—	—	—	.102	.096	.019	.124	—	—	—	—	
	.400	.041	.033	—	—	0.013	.086	—	—	—	—	—	—	.083	.072	.007	.099	—	—	—	—	
0	.267	.040	.032	—	—	0.011	.079	—	—	—	—	—	—	.065	.061	.009	.085	—	—	—	—	
	0	.032	.022	—	—	0.017	.069	—	—	—	—	—	—	.051	.039	—	0.222	—	—	—	—	
0.50	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.967	.103	.086	—	—	0.011	.207	—	—	—	—	—	—	.216	.199	.042	.270	—	—	—	—	
	.933	.037	.016	—	—	0.080	.132	—	—	—	—	—	—	.154	.172	.014	.206	—	—	—	—	
	.900	—	—	—	—	0.005	—	—	—	—	—	—	—	.186	.186	.004	.172	—	—	—	—	
	.867	.016	.011	—	—	0.085	.086	—	—	—	—	—	—	.104	.094	—	.135	—	—	—	—	
	.800	—	—	—	—	0.015	0.086	—	—	—	—	—	—	.050	.049	.049	.082	—	—	—	—	
	.733	.007	.025	—	—	0.084	.074	—	—	—	—	—	—	.022	.010	.064	.043	—	—	—	—	
	.667	.020	.031	—	—	0.089	.028	—	—	—	—	—	—	0	.011	.015	.085	.018	—	—	—	
	.600	.019	.030	—	—	0.088	.025	—	—	—	—	—	—	.019	.029	.088	.002	—	—	—	—	
	.533	.017	.027	—	—	0.079	.025	—	—	—	—	—	—	.019	.035	.092	.014	—	—	—	—	
	.467	.016	.025	—	—	0.074	.020	—	—	—	—	—	—	.021	.033	.095	.011	—	—	—	—	
	.400	.017	.018	—	—	0.072	.023	—	—	—	—	—	—	.014	.027	.090	.004	—	—	—	—	
	.367	.013	.022	—	—	0.064	.021	—	—	—	—	—	—	.008	.013	.078	.012	—	—	—	—	
	.300	.012	.021	—	—	0.062	.018	—	—	—	—	—	—	.004	.010	.071	.007	—	—	—	—	
	0	.018	.028	—	—	0.068	.014	—	—	—	—	—	—	.008	.015	.079	.005	—	—	—	—	
0.75	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	.978	—	—	—	—	—	—	—	—	—	—	—	—	.140	—	.045	—	—	—	—	—	—
	.955	.004	.032	—	—	0.101	.091	—	—	—	—	—	—	.105	.076	.054	.119	—	—	—	—	
	.933	.027	.046	—	—	0.126	.067	—	—	—	—	—	—	.046	.033	.083	.078	—	—	—	—	
	.912	.044	—	—	0.139	—	—	—	—	—	—	—	—	.018	0	.094	.042	—	—	—	—	
	.889	.056	.081	—	—	0.146	.008	—	—	—	—	—	—	.011	.041	.121	.005	—	—	—	—	
	.867	—	—	—	—	0.093	—	—	—	—	—	—	—	.053	—	—	.018	—	—	—	—	
	.845	.072	.092	—	—	0.156	.015	—	—	—	—	—	—	.050	.069	.150	.033	—	—	—	—	
	.800	.081	.096	—	—	0.160	.028	—	—	—	—	—	—	.064	.087	.157	.053	—	—	—	—	
	.756	.088	.088	—	—	0.158	.023	—	—	—	—	—	—	.097	—	.068	—	—	—	—	—	
	.711	.078	.087	—	—	0.151	.031	—	—	—	—	—	—	.073	.092	.153	.051	—	—	—	—	
	.667	.061	—	—	0.133	—	—	—	—	—	—	—	—	.070	.086	.155	.036	—	—	—	—	
	.622	.067	.079	—	—	0.134	.023	—	—	—	—	—	—	.067	—	.149	—	—	—	—	—	
	.578	.092	.073	—	—	0.112	.020	—	—	—	—	—	—	.055	.074	.141	.030	—	—	—	—	
	.533	.057	.066	—	—	0.116	.015	—	—	—	—	—	—	.043	.059	.111	.031	—	—	—	—	
	.446	—	—	—	—	0.057	—	—	—	—	—	—	—	.041	.048	.119	.034	—	—	—	—	

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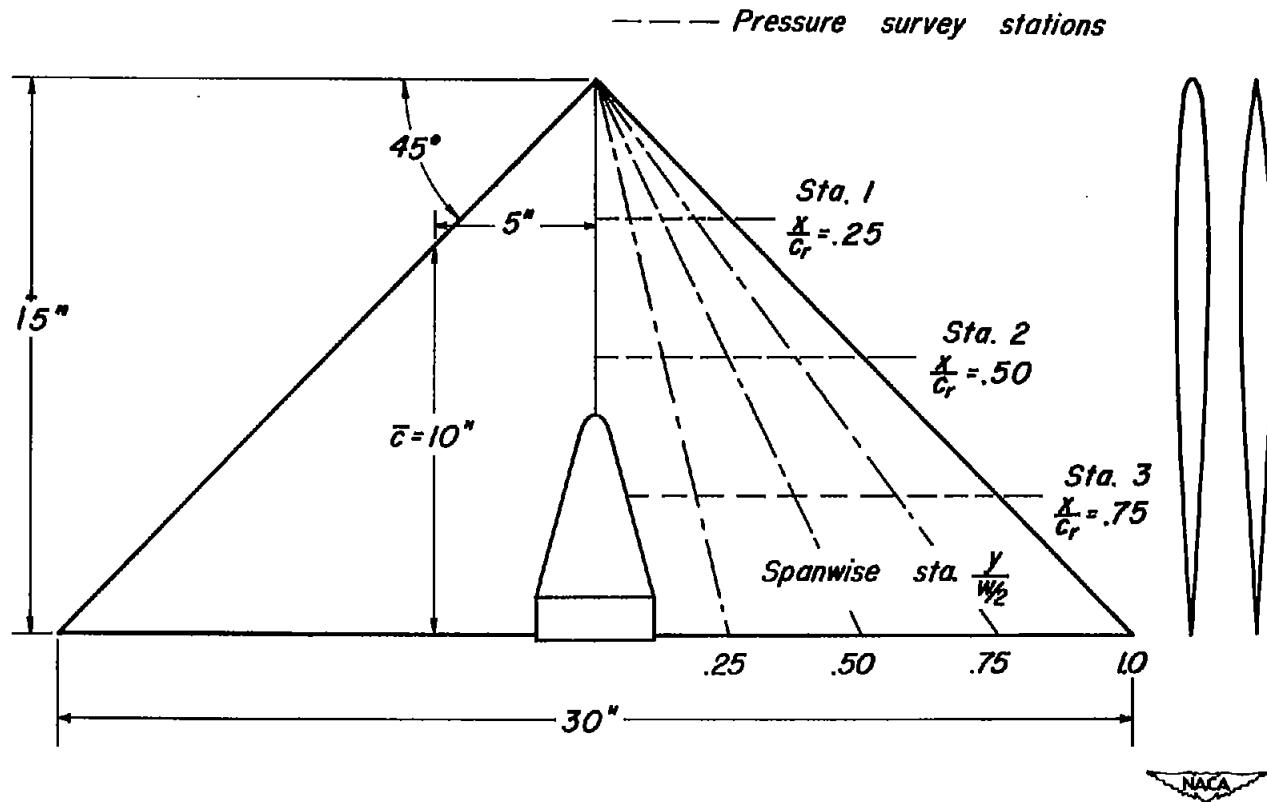


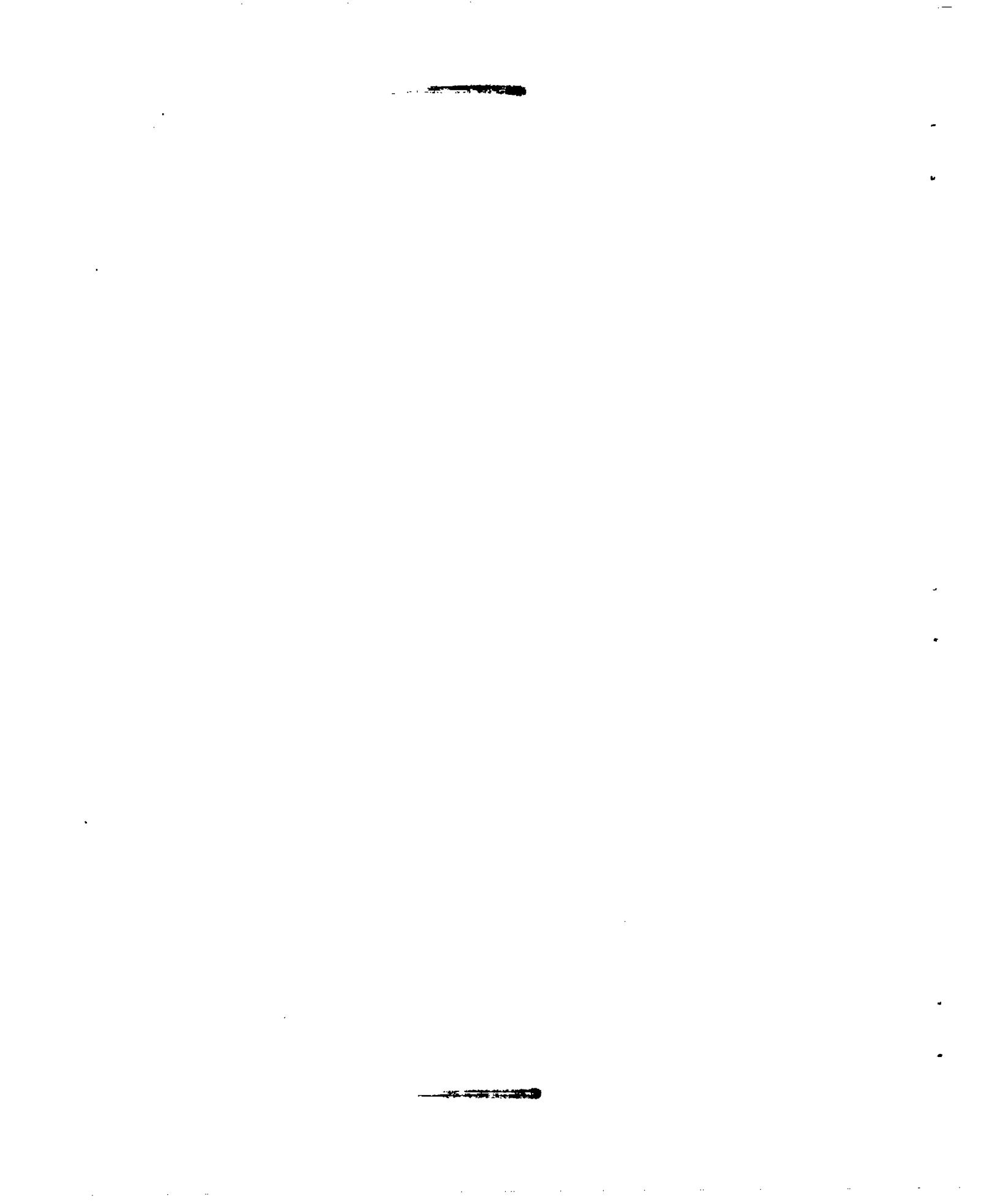
Figure 1.—Dimensional sketch of triangular wing showing both the round-nose airfoil section (NACA 0006-63) and the sharp-nose airfoil section.

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Figure 2.- Model mounted in the Ames 6- by 6-foot supersonic wind tunnel.



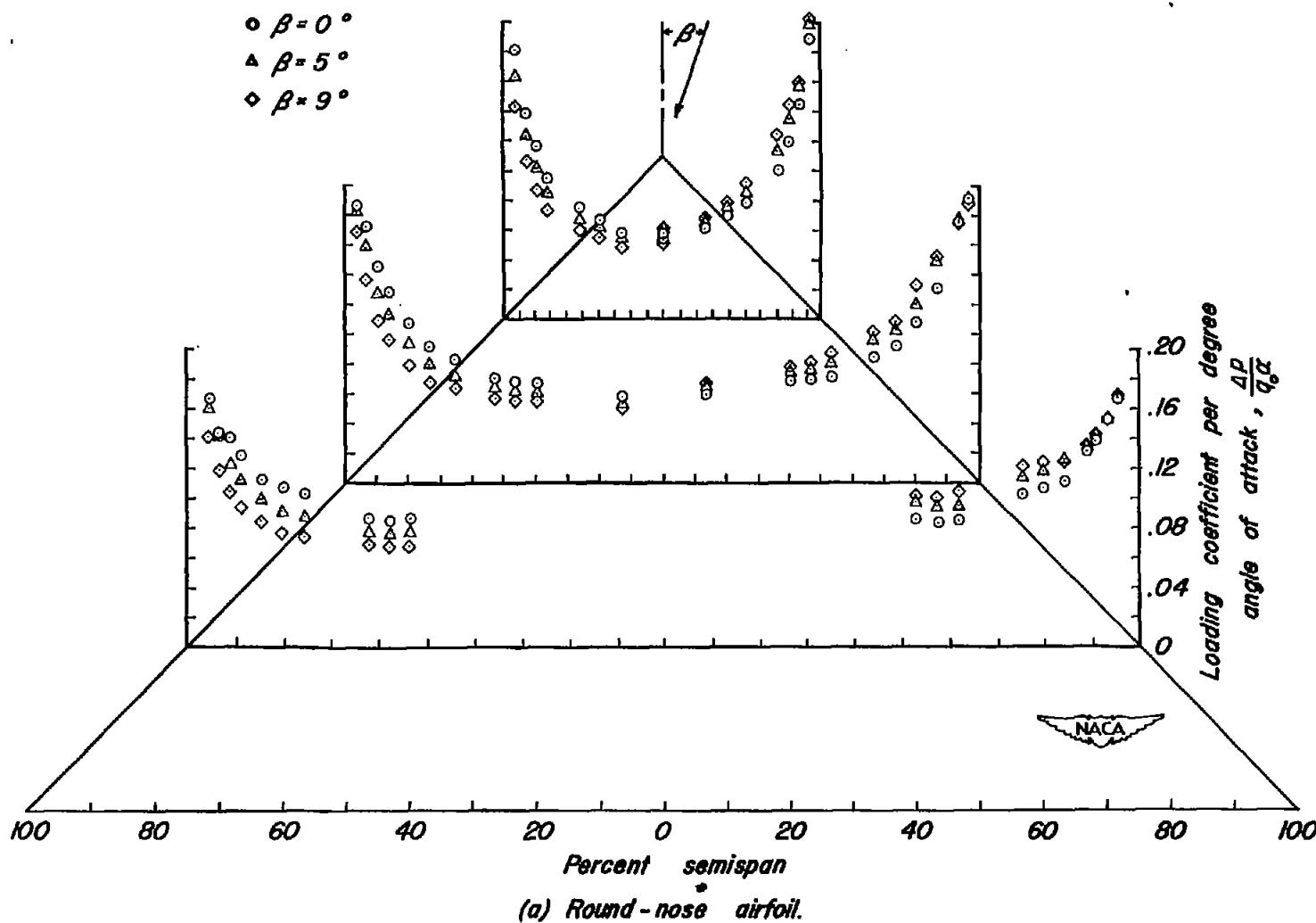


Figure 3.— Variation with angle of sideslip of experimental load distribution over a triangular wing at 2.5° angle of attack. $M=1.20$.

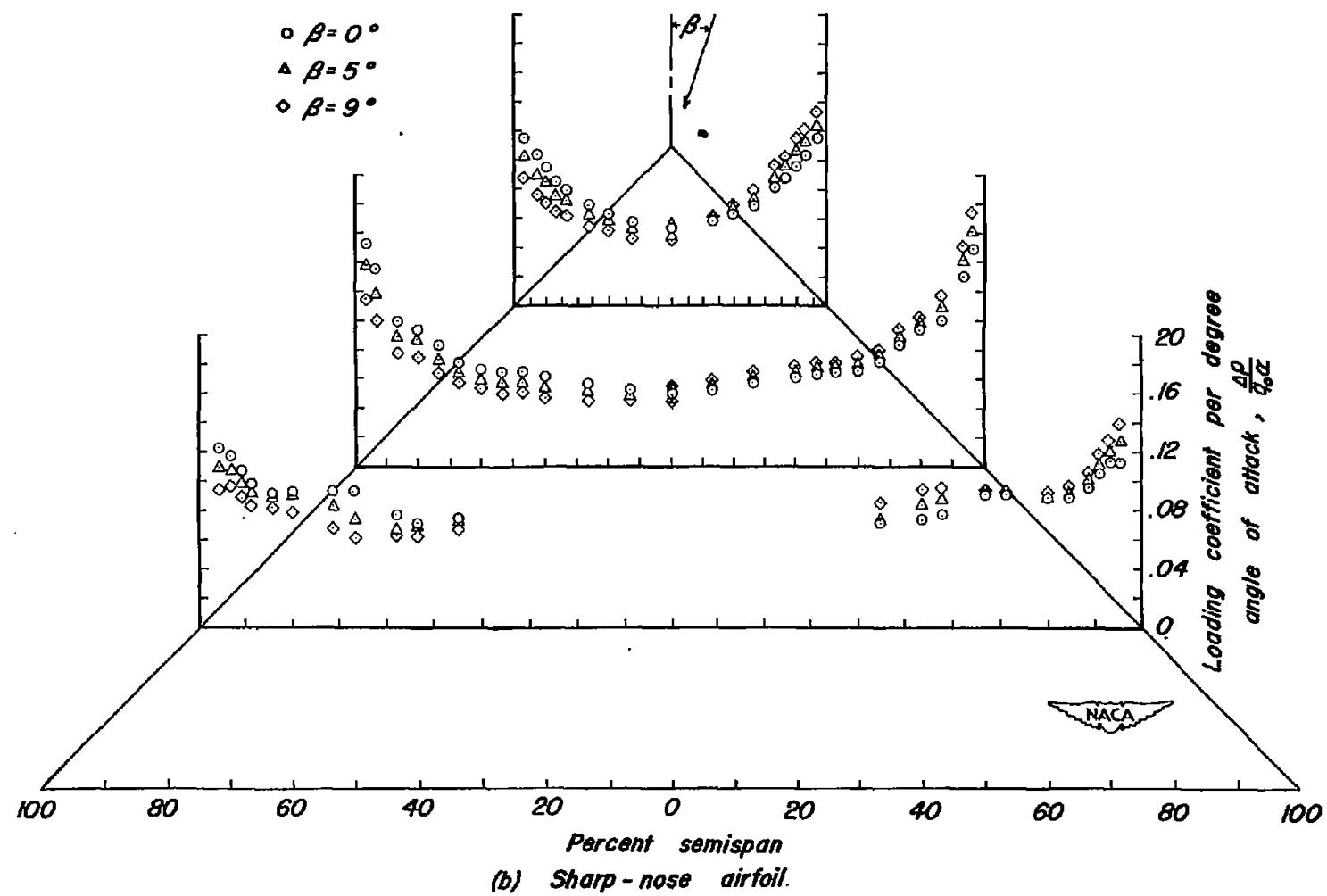


Figure 3.— Concluded.

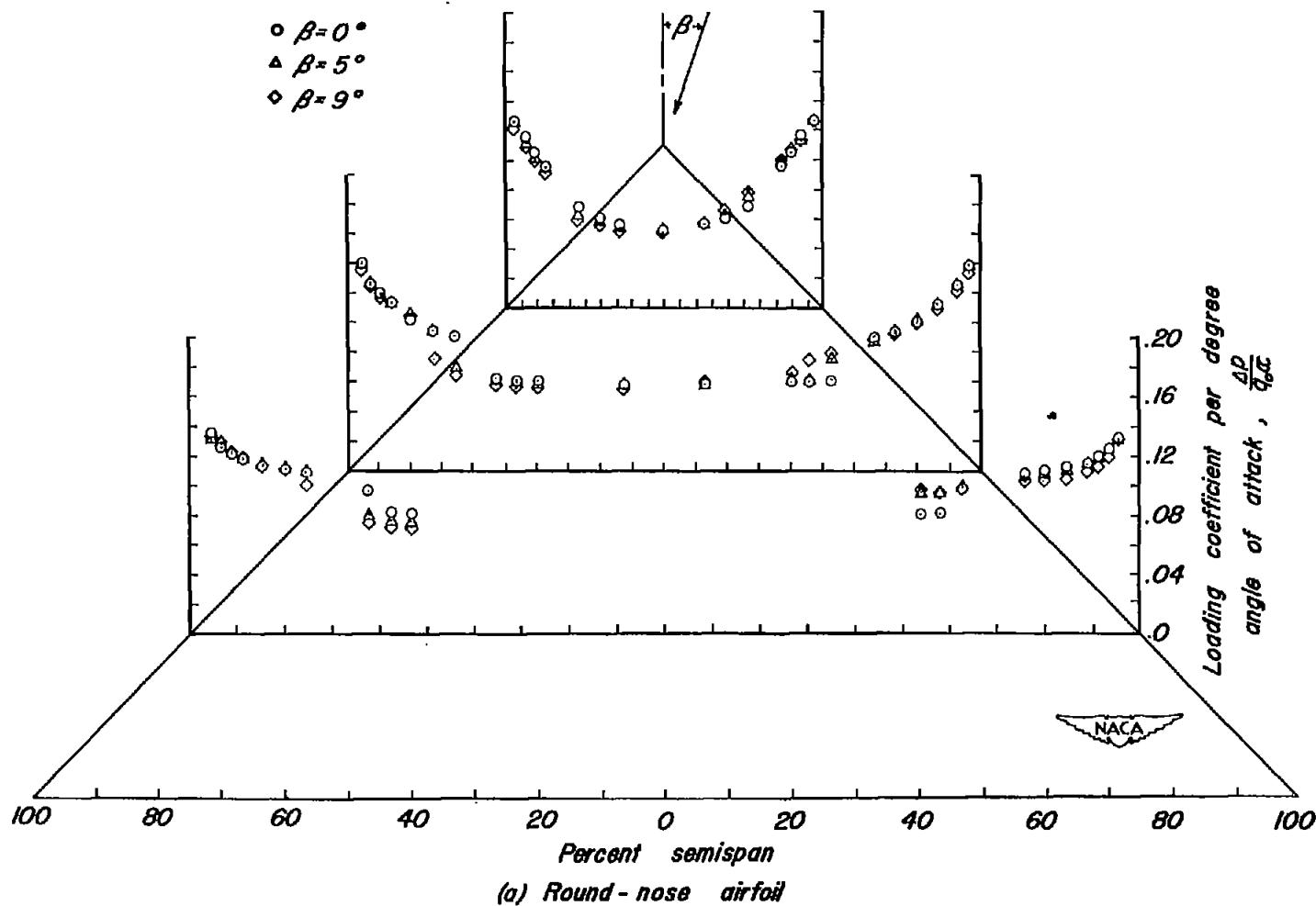
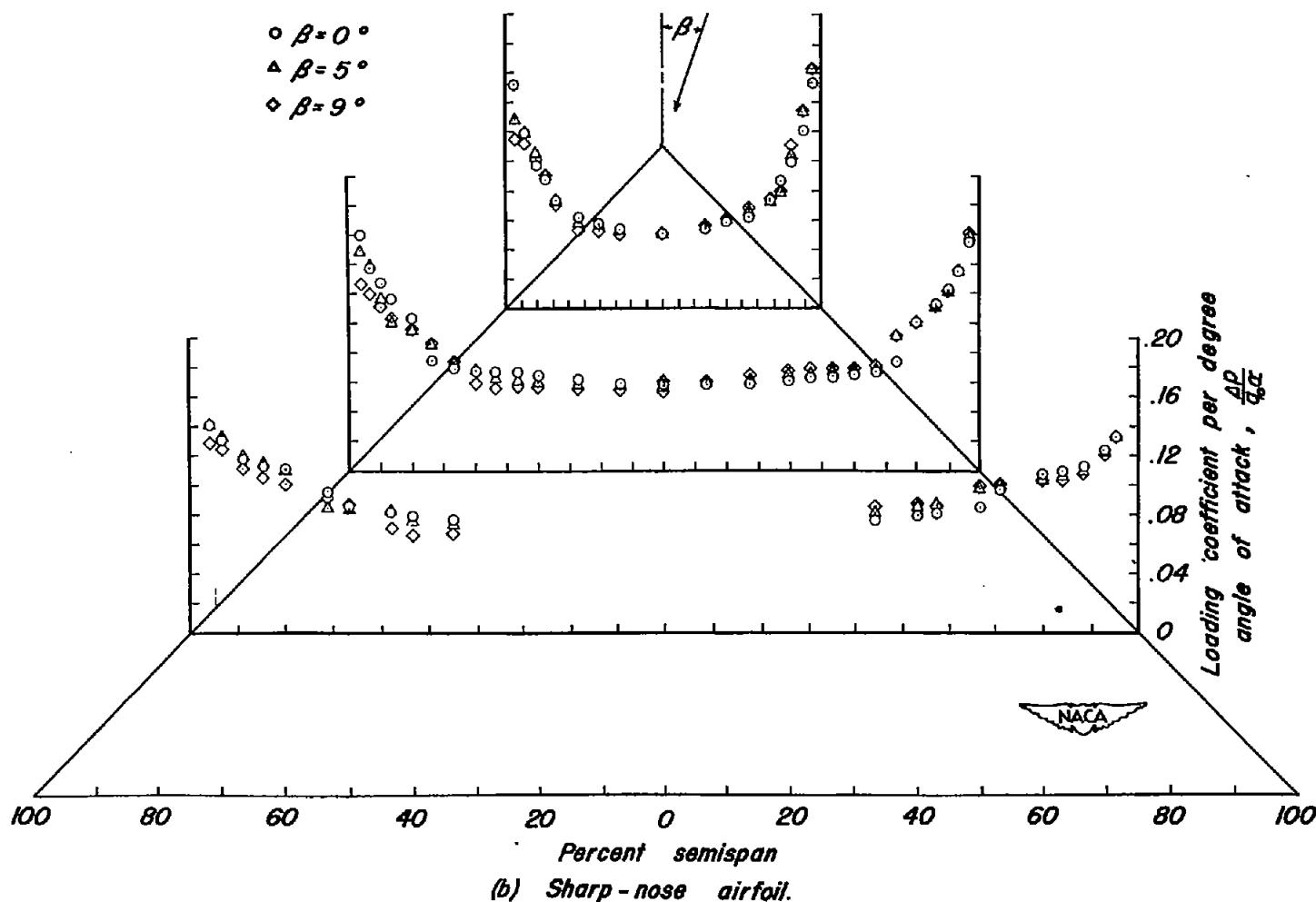
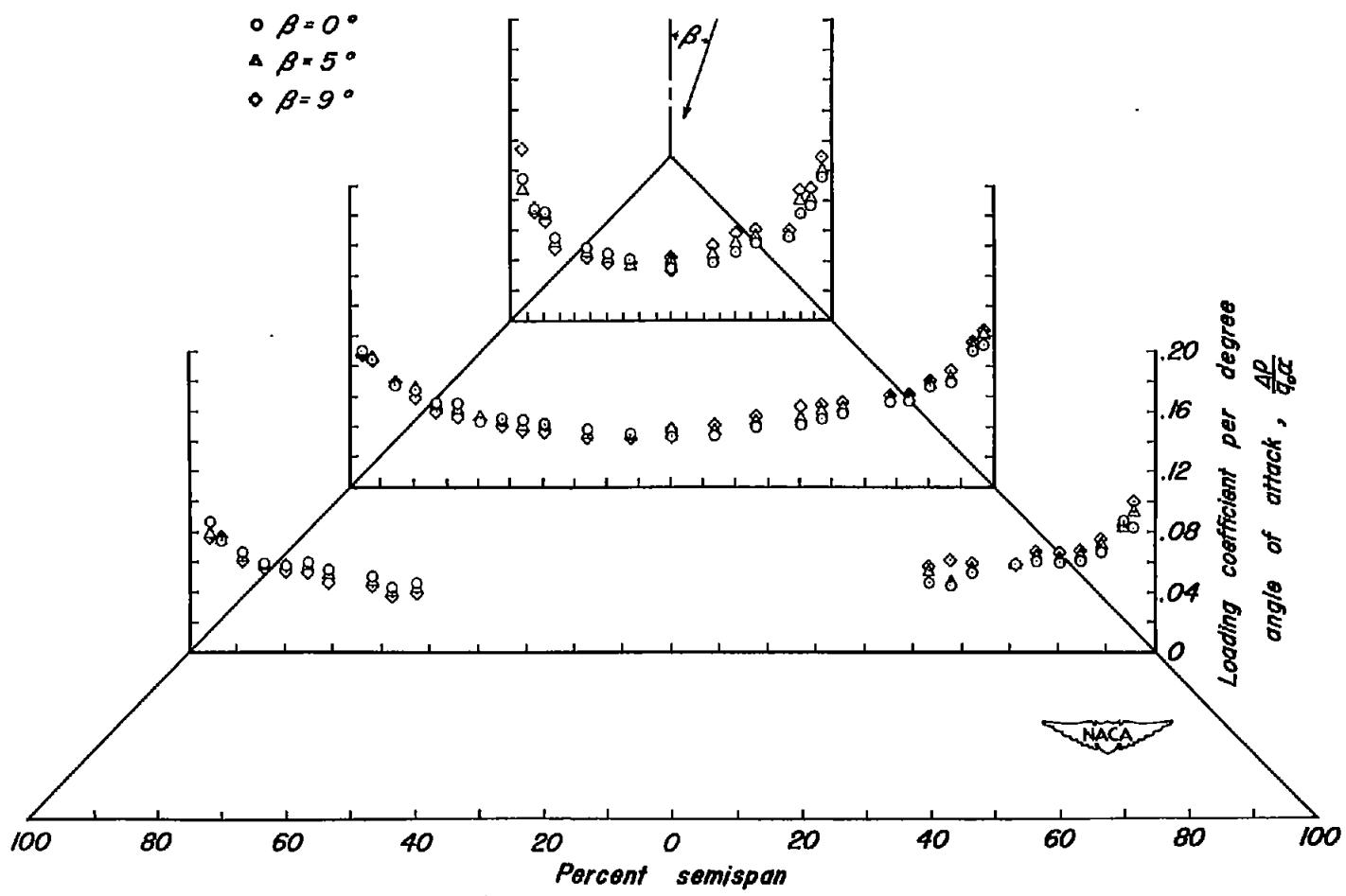


Figure 4.— Variation with angle of sideslip of experimental load distribution over a triangular wing at 8.6° angle of attack. $M=1.20$.



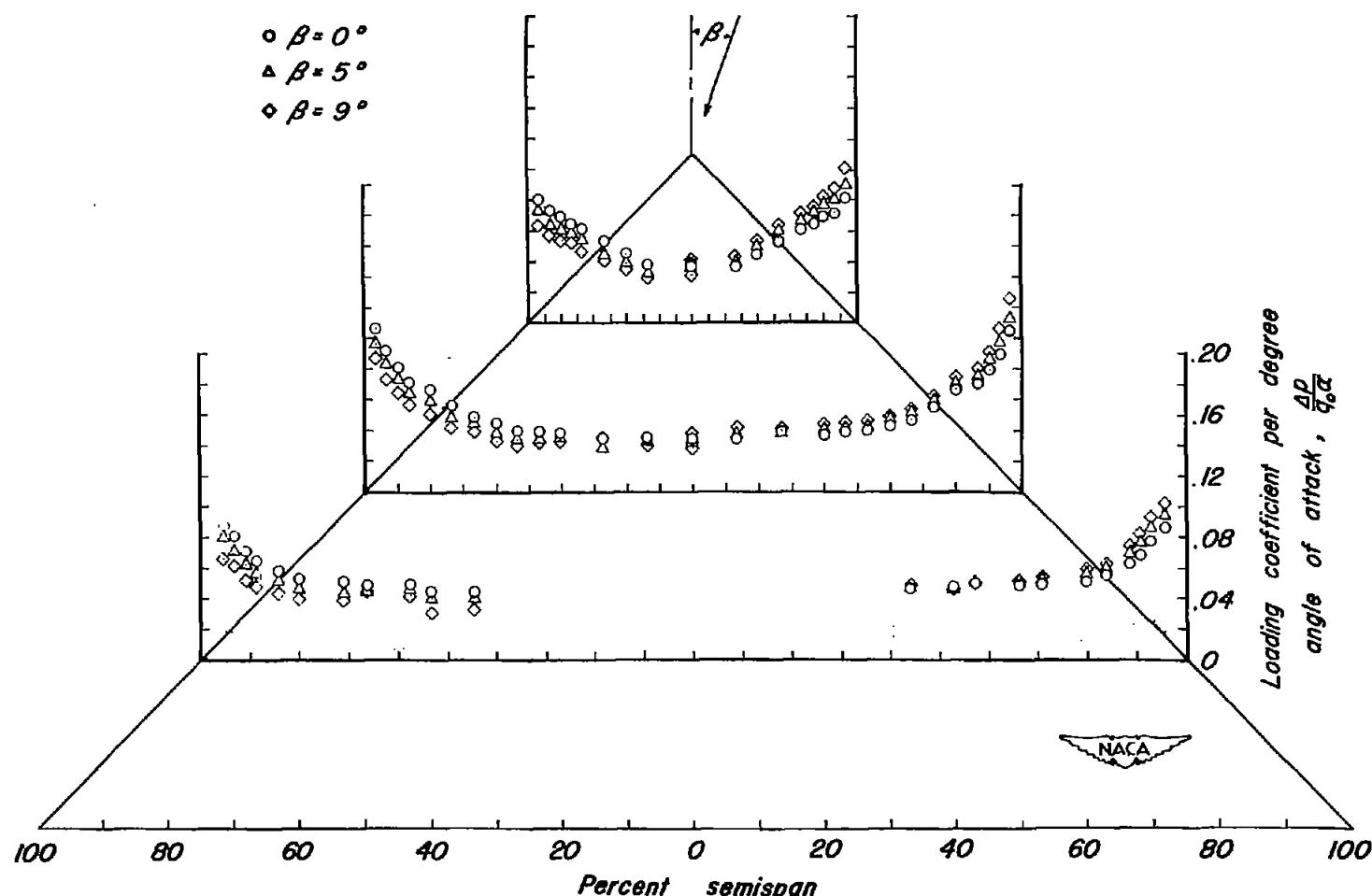
(b) Sharp-nose airfoil.

Figure 4.- Concluded.



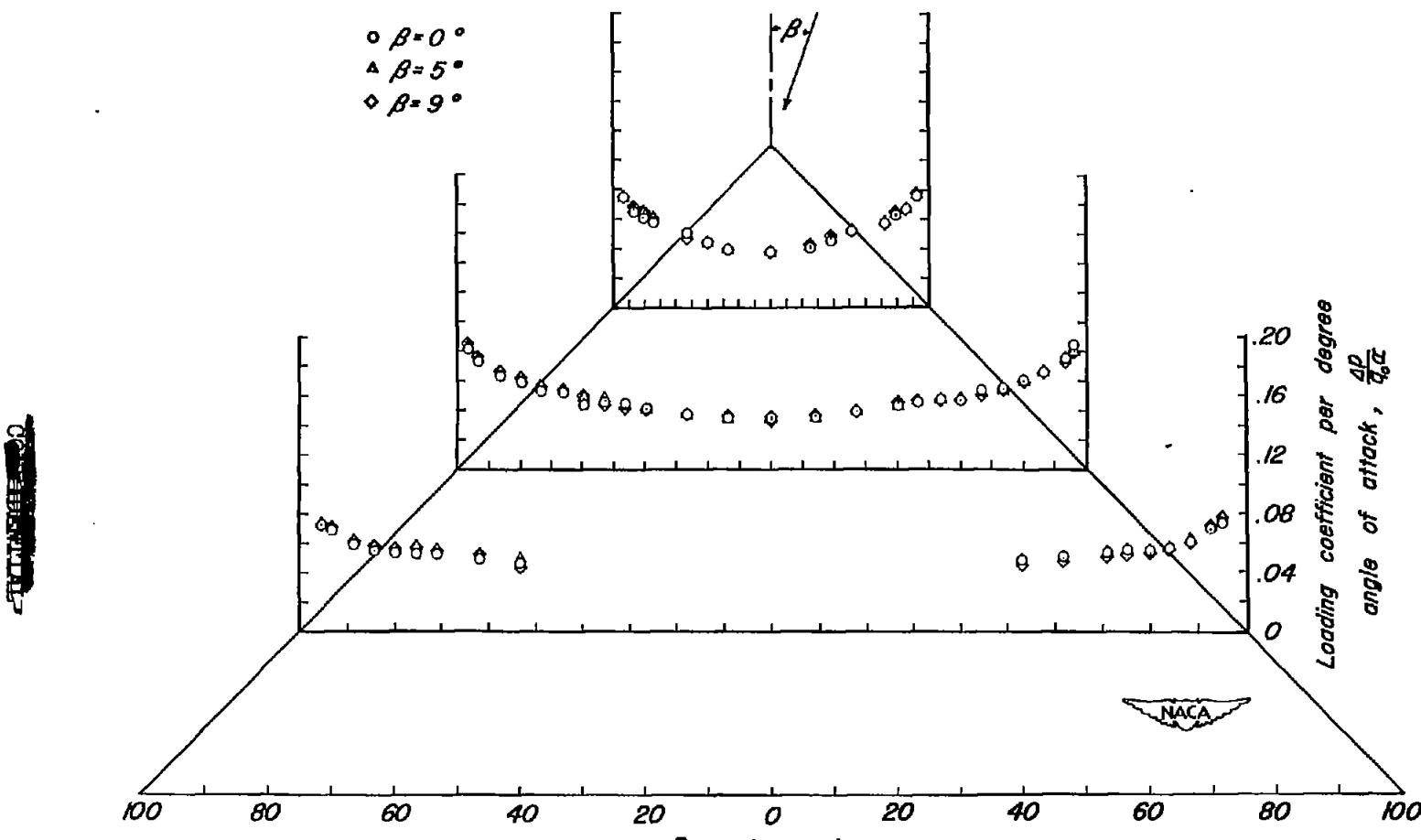
(a) Round-nose airfoil.

Figure 5.—Variation with angle of sideslip of experimental load distribution over a triangular wing at 2.5° angle of attack. $M=1.70$.



(b) Sharp - nose airfoil.

Figure 5.- Concluded.



(a) Round-nose airfoil.

Figure 6.—Variation with angle of sideslip of experimental load distribution over a triangular wing at 8.6° angle of attack. $M=1.70$.

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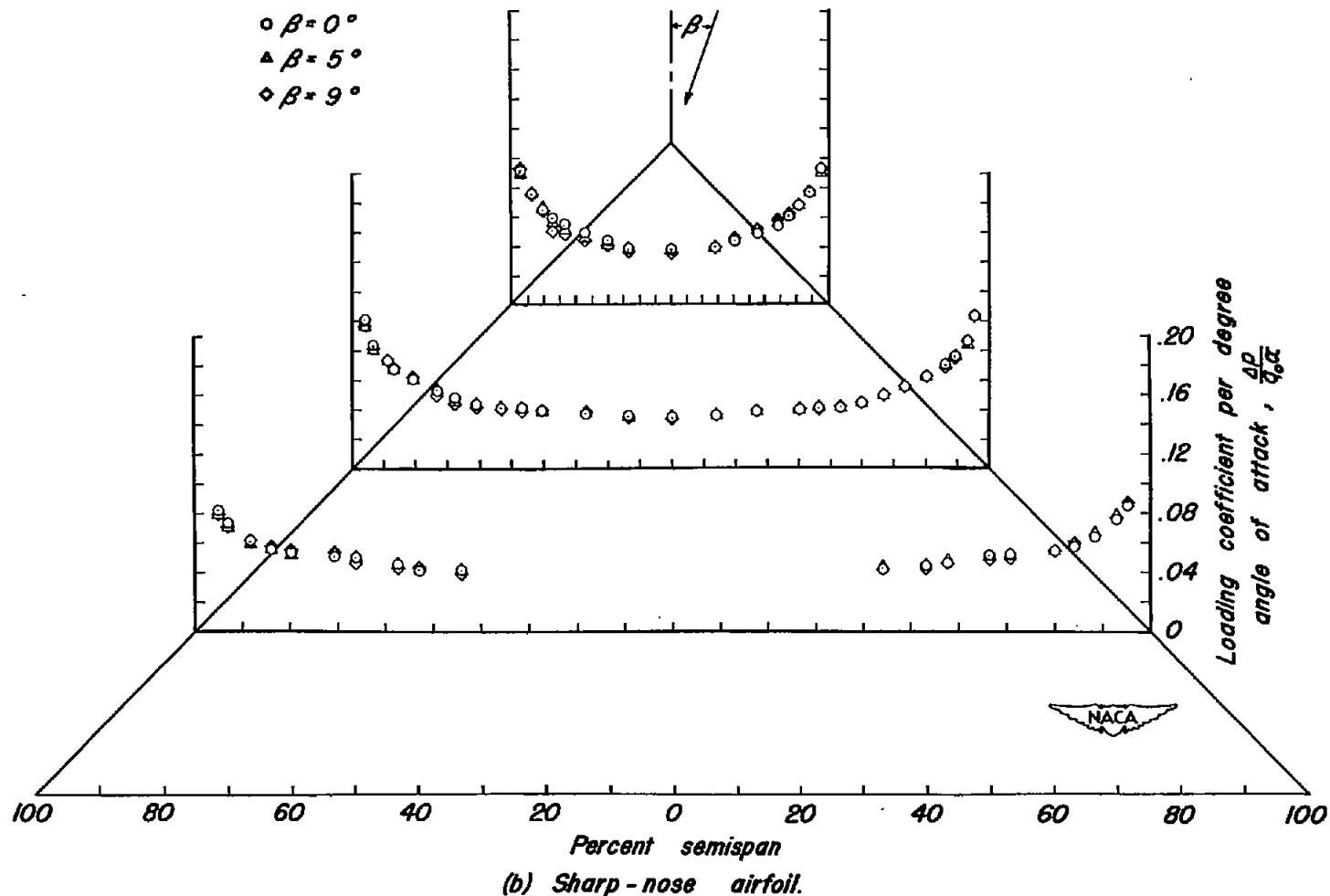
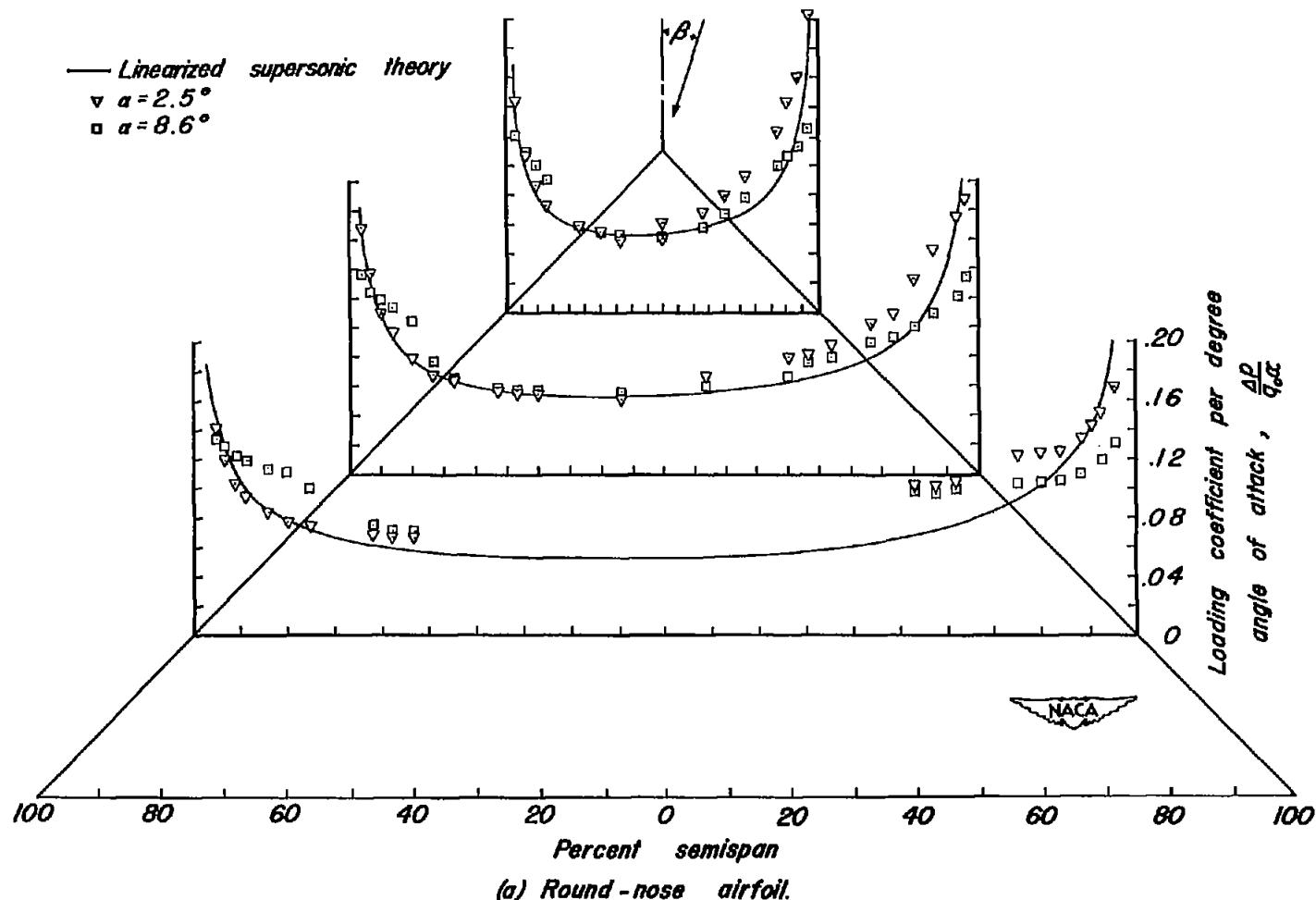


Figure 6.- Concluded.

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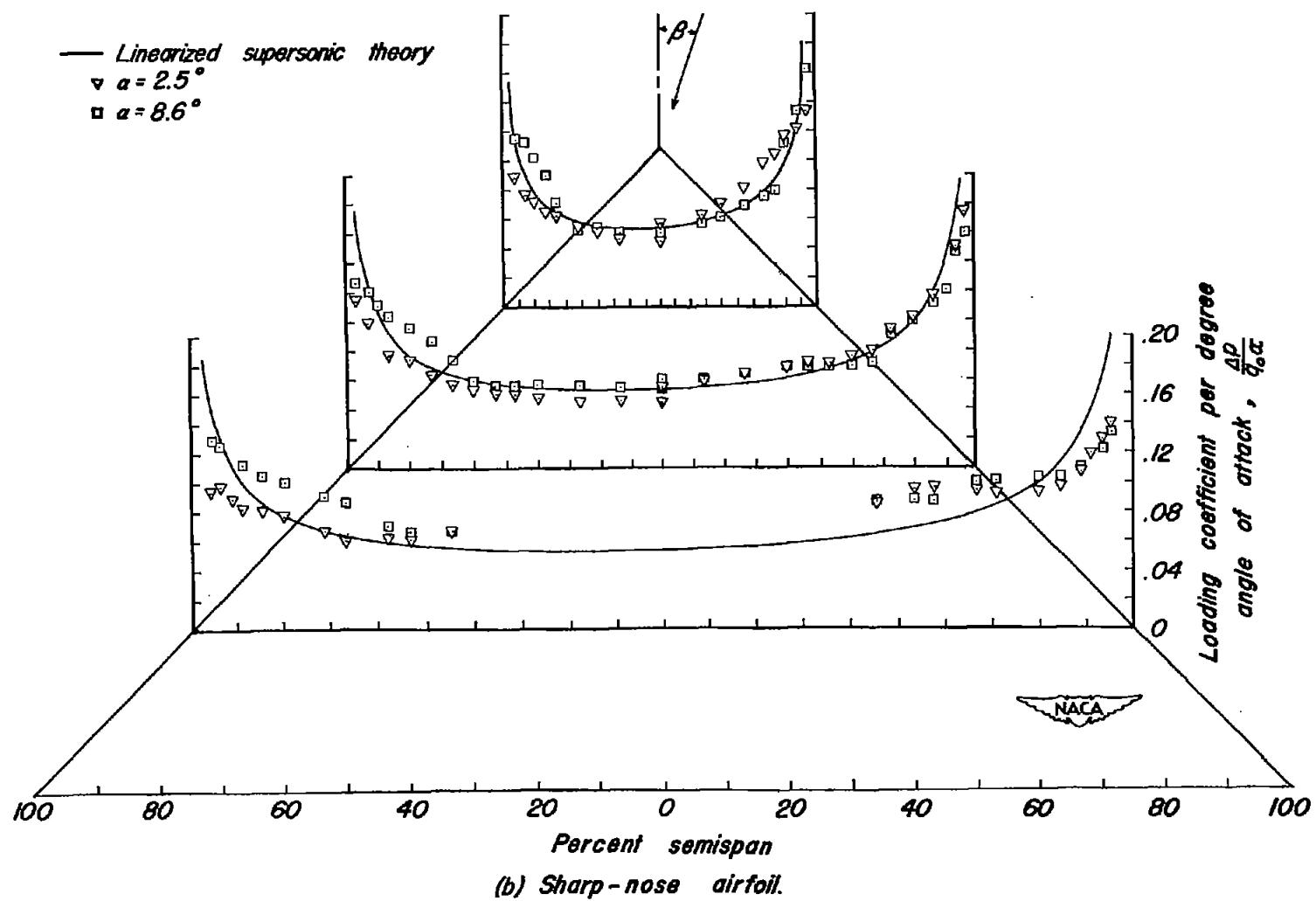


(a) Round-nose airfoil.

Figure 7.—A comparison of the experimental and theoretical load distributions at $\beta = 9^\circ$, $M = 1.20$.

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(b) Sharp-nose airfoil.

Figure 7.— Concluded

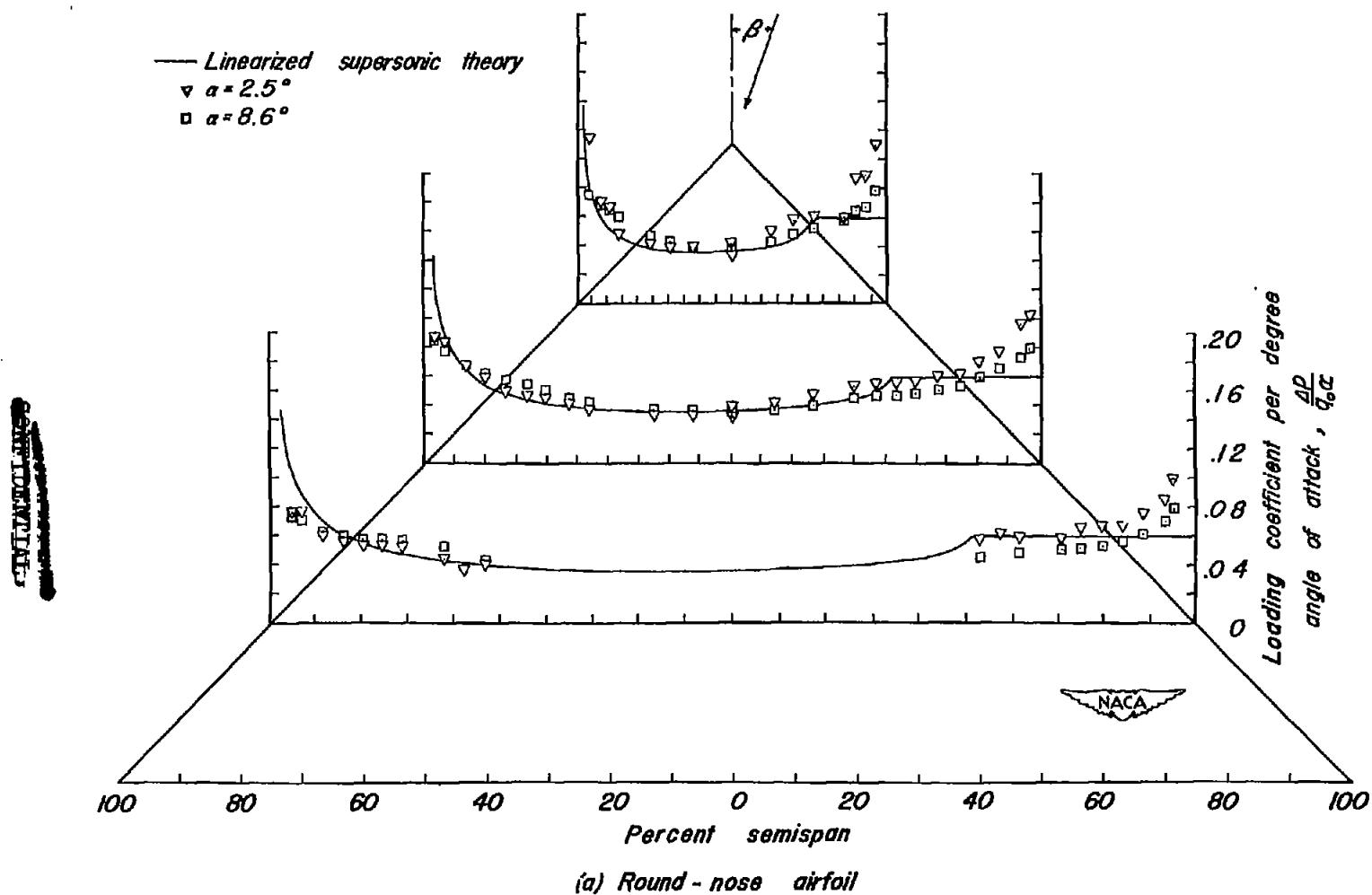
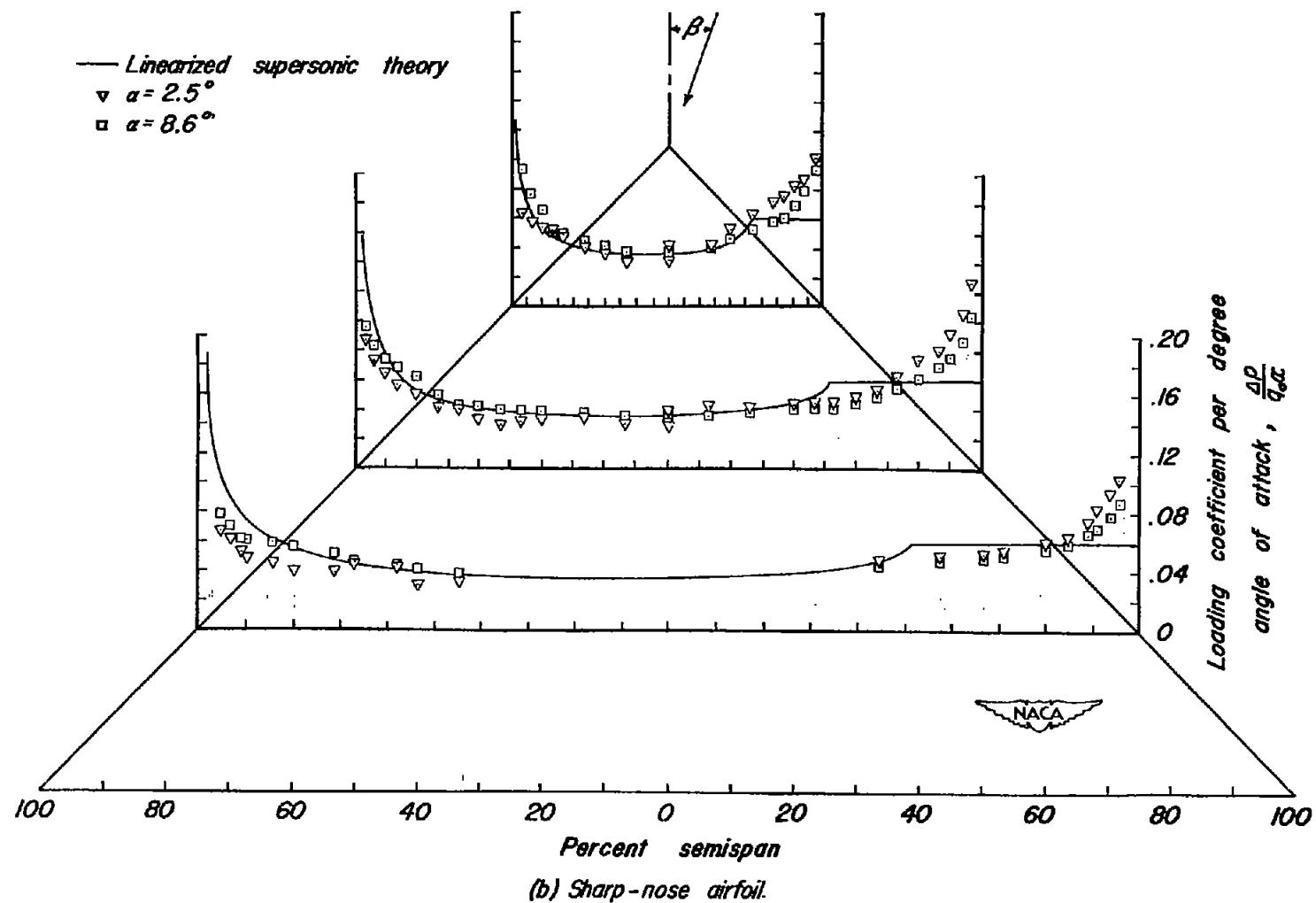


Figure 8.—A comparison of the experimental and theoretical load distributions at $\beta = 9^\circ$, $M = 1.70$.



100 80 60 40 20 0 20 40 60 80 100